



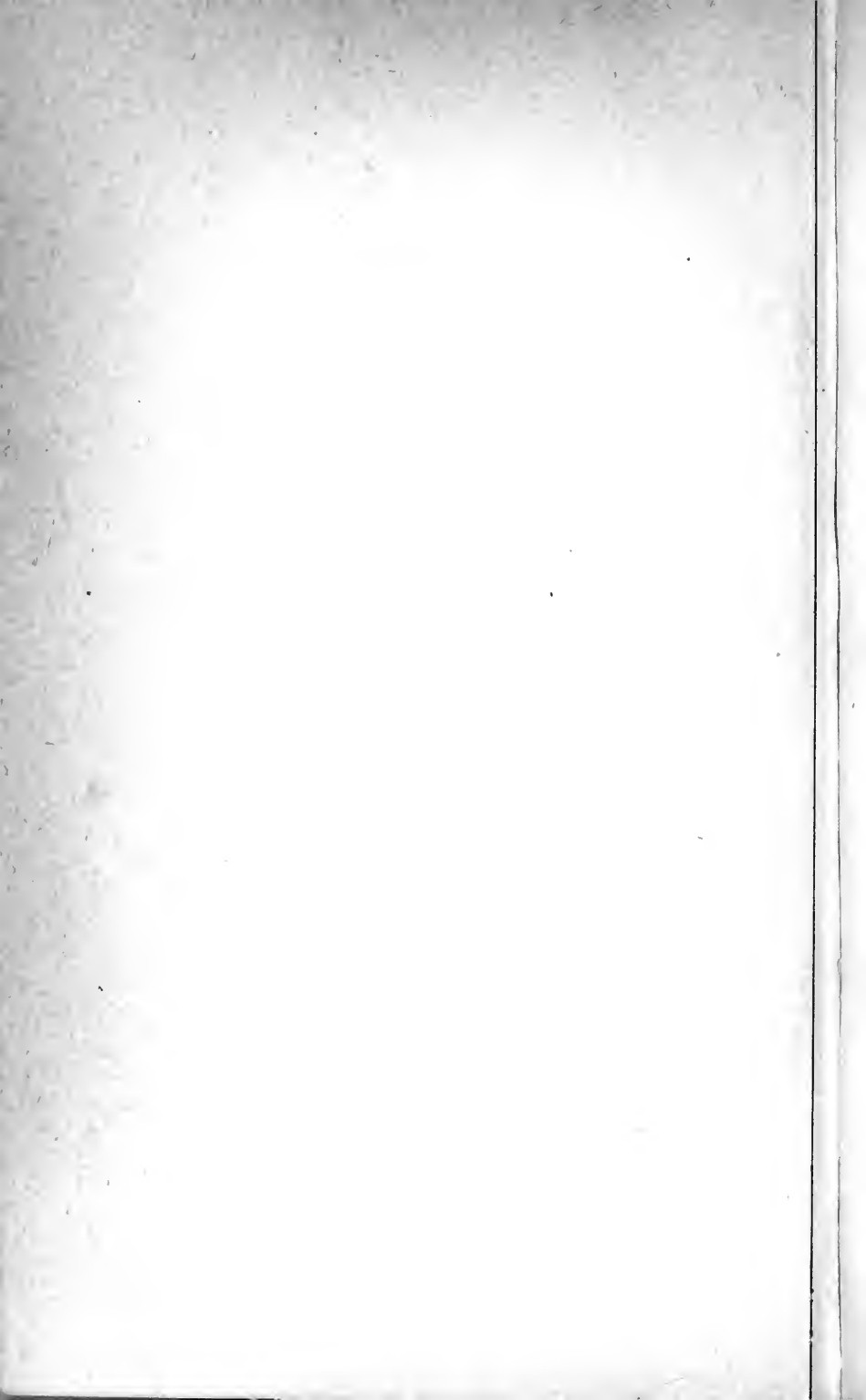
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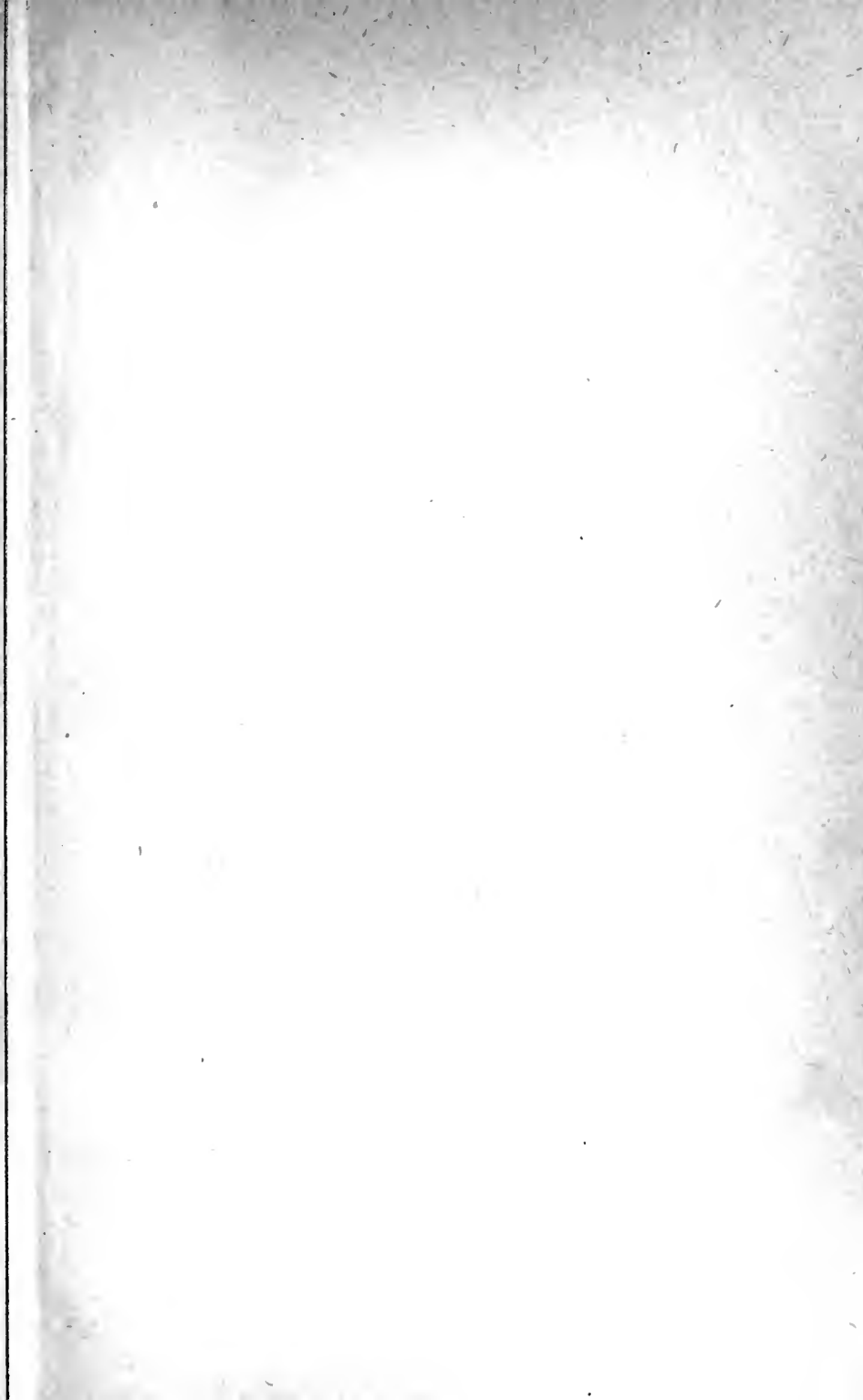
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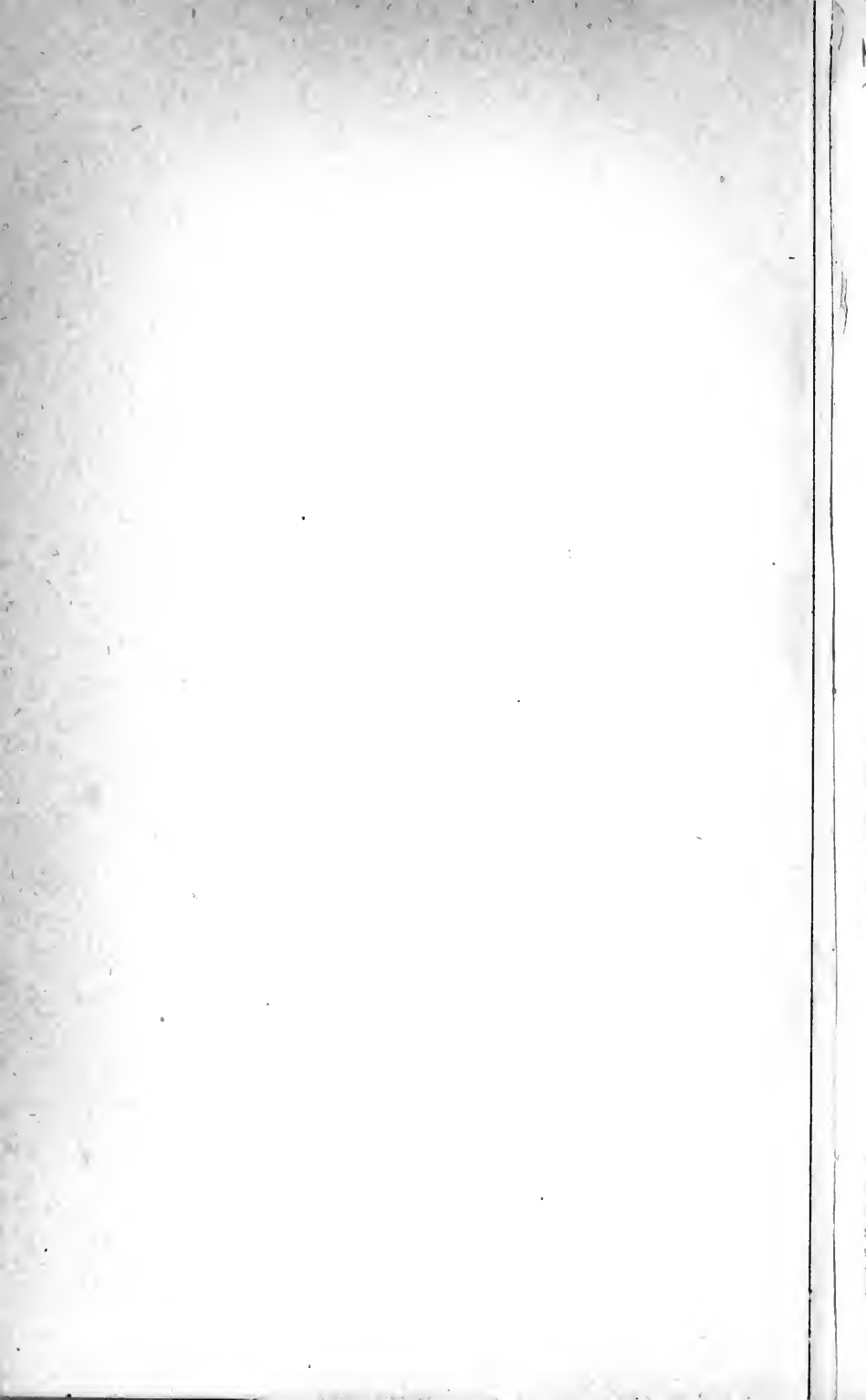
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ART. I.—PROFESSOR TYNDALL AND HIS OPPONENTS.

BY J. M. WINN, M.D., M.R.C.P., &c.

IN the *Fortnightly Review* for November 1875, Dr. Tyndall published his long-expected reply in an article entitled "Materialism and its Opponents." A more unsatisfactory or evasive answer can scarcely be imagined. He was challenged to prove, by inductive reasoning, the truth of the materialistic theory which he advocated so strongly. He was, moreover, earnestly pressed to explain the inconsistency between the opinions given in his Address before the British Association at Belfast and those which he afterwards published in his reprint. To this glaring inconsistency I referred as follows in my treatise on Materialism* :—"The strongest contrast, however, to the materialistic opinions so conspicuously brought forward in the Address, as well as in Dr. Tyndall's other published works, is exhibited in the following extract from the preface to the reprint of the Address, which appeared about a month after its delivery : 'I have noticed during years of self-observation that it is not in hours of clearness and vigour that this doctrine [material atheism] commends itself to my mind ; that in the presence of stronger and healthier thought it ever dissolves and disappears,† as offering no solution of the

* "Materialism" (originally published in the *Journal of Psychological Medicine*) with Appendix : Hardwicke & Bogue, 192 Piccadilly, London.

† Dr. Lionel Beale puts this inconsistency very forcibly in his lecture on the "Machinery of Life," delivered before the Philosophical Society of Leamington, January 7, 1875 :—"Perhaps the most marvellous feat ever performed by any machine, conscious or unconscious, was that of discerning in matter 'the promise and potency of all terrestrial life' in the month of August, and discovering in the next month, in the presence of stronger and healthier thought, that the doctrine dissolved and disappeared."

mystery in which we dwell, and of which we form a part.' It is deeply to be deplored that Dr. Tyndall did not mention this fact when he delivered his Address at Belfast, and promulgated doctrines which are calculated to undermine the faith of thousands, and which, if true, would shake the very foundations of all morality and religion." He has fulfilled neither of these requirements. He has left his molecular hypothesis as baseless as ever, and has altogether avoided giving a positive answer to the vital question, whether he is or is not a materialistic atheist. From a man holding a distinguished and influential position, and who is also a popular lecturer on physical science, the public had a right to expect a satisfactory reply to such an inquiry; and, as he has not given one, there is strong reason to fear, from the prevailing tone of the article in the *Fortnightly Review*, that since the publication of the reprint of his Address, Dr. Tyndall has not experienced many of those lucid intervals in which the doctrine of materialistic atheism ceases to commend itself to his mind, and it must therefore be concluded that he is still wandering in the dark and dreary region of Atheism.

I will now proceed to make a few observations on the leading points of the Professor's reply in the order in which they occur. It is painful to find him always on the alert to throw discredit on revealed religion, and he seems never so happy as when he thinks he has found some flaw in the Bible. He commences his paper with an irrelevant discussion on the Colenso controversy, on which he has nothing new to offer, and forgets that it has nothing to do with the question at issue. This question has no reference to any particular form of religion; it is not whether the Mosaic account of the Creation be true or false; but it is the question which involves the foundation of all religion—whether we are to believe in a Creator and overruling Providence, or to substitute the Professor's extravagant and visionary notion of atomic power. If this latter be true, a holocaust may at once be made of the Bible, the Vedas, the Koran, and all other religious books; and every man must be left to do that which is right in his own eyes.

Dr. Tyndall observes that he has "no desire to repay in kind the hard words" which have been thrown at him. He cannot expect that those who have read his unjustifiable and unprovoked attack on religion will allow what they hold most sacred to be treated with ridicule or contempt without raising an earnest protest against it. The following passages from his reply will show that he does not always use language of the gentlest character. Speaking of the Catholic student, he says: "Let him sit under the immeasurable heavens, watch the stars in their courses, scan the mysterious nebulae, and try to realise

what it all is and means. Let him bring the thoughts and conceptions which thus enter into his mind face to face with the notions of the genesis and rule of things which pervade the writings of the princes of his Church, and he will see and feel what *drivellers* even men of strenuous intellects may become, through exclusively dwelling and dealing with theological chimeras." . . . "But, quitting the more *grotesque* forms of the theological, I already see, or think I see, emerging from recent discussions, that wonderful plasticity of the Theistic Idea which enables it to maintain through many changes its hold upon superior minds; and which, *if* it is to last, will eventually enable it to shape itself in accordance with scientific conditions." Again, "The resurrection of our Saviour, says Dr. Reichel, 'is the central fact of Christianity. Without His resurrection, His birth and His death would have been alike unavailing; nay, more, if He did not rise from the dead His birth was the birth of a bastard, and his death the death of an impostor.' This may be orthodoxy, but, entertaining the notions that I do of Christ and of His incomparable life upon the earth, if the momentary use of the term *blasphemy* were granted to me by my Christian brethren, I should feel inclined to employ it here." It is unnecessary to say anything further about the words used in these passages which I have marked in italics, but it is of the greatest importance that the unphilosophical opinions expressed in them should be combated. If the *plasticity of the Theistic Idea* be admitted, and we are to leave the settlement of the whole matter to Dr. Tyndall, there is an end of the discussion, and he would so mould the plastic Idea that the notion of a Creator would be reduced to a self-generated molecule. Dr. Reichel's expression is perfectly true and just. If the Divine nature of Christ be not admitted* the inevitable conclusion is that He must have been illegitimate. It is to be hoped that Dr. Tyndall will give the world the benefit of the particular notions which he says he entertains of Christ. I fear that those of a materialist cannot be very exalted, as of course it is impossible for him to admit his Divinity.

In referring to the question whether mathematics tends to give support to theology or not, the Professor exultingly remarks that "out of mathematics no salvation for theology can possibly come." We might retort and say, out of mathematics no salvation for materialism can possibly come. No one pretends to demonstrate the existence of a Deity by mathematics: it is sufficient to know that the study of this science is not incom-

* Dr. Adam Clarke, in his Commentary and Critical Notes on the Bible, observes, in allusion to the well-known words "I and my Father are one," that "If Jesus Christ was not God, could He have said these words without blasphemy?"

patible with religious belief. Some of our greatest mathematicians were believers in the being of a God; for instance, Newton, Pascal, Wallis, Bradley, Brinkley, Peacock, &c. Moreover, it must be admitted that the discoveries which have been made in astronomy by the aid of mathematics have given us grander conceptions of the might and majesty of the Creator.

Dr. Tyndall, who will drag theology into the discussion, heedless of the fact that it has nothing to do with his materialistic hypothesis, occupies more than half of his article in showing to what extent he agrees or disagrees with the views of the Rev. James Martineau. He quotes the following eloquent passage from that gentleman's writings, and then proceeds to comment upon it: "The universe which includes us and folds us round is the life-dwelling of an Eternal Mind; the world of our abode is the scene of a moral government, incipient but not yet complete; and the upper zones of human affections, above the clouds of self and passion, take us into the sphere of a Divine Communion." Dr. Tyndall states that he has himself experienced a Communion of this sort, but it will be seen from the following passages that there is nothing very Divine in the Professor's Communion. They are much the same as those to which I referred at the commencement of this article. He observes that in the "hours of health and strength and sanity, when the stroke of action has ceased and the pause of reflection has set in, the scientific investigator finds himself overshadowed by the same awe. Breaking contact with the hampering details of earth, it associates him with a power which gives fulness and tone to his existence, but which he can neither analyse nor comprehend." . . . "When I attempt to give the Power which I see manifested in the universe an objective form, personal or otherwise, it slips away from me, declining all intellectual manipulation. I dare not, save poetically, use the pronoun He regarding it; I dare not call it a Mind; I refuse to call it even a Cause. Its mystery overshadows me, but it remains a mystery, while the objective frames which my neighbours try to make it fit, simply distort and desecrate it." But the Professor should not stop here. Having brought down his Communion to a poetical emotion, the next step for a materialist is—to use his own phraseology—to reduce that emotion to the "thrill of a ganglion."

In a foot-note, Dr. Tyndall introduces the following singular excuse for the versatility of his opinions:—"In the first preface to the 'Belfast Address,' I referred to 'hours of clearness and vigour,' as four years previously I had referred to hours of 'health and strength and sanity,' and brought down upon myself in consequence, a considerable amount of ridicule. Why, I

know not: for surely it is not when sleepy after a gluttonous meal, or when suffering from dyspepsia, or even when possessed by an arithmetical problem demanding concentrated thought, that we care most for the starry heavens or the sense of responsibility in man." It would have been wiser if the Professor, when on the platform at Belfast, had given to the world his choicest thoughts; otherwise it must seem as if he had given utterance to crude materialistic opinions which might have been engendered at some time when he was sleepy, when suffering from dyspepsia, after a gluttonous meal, or when possessed by an arithmetical problem demanding concentrated thought.

In reply to the oft-repeated objection to materialism—"If you only knew the comfort of belief"—Dr. Tyndall says, "I choose the nobler part of Emerson, when, after various disenchantments, he exclaimed 'I covet truth.'" Of all the cant in this canting world, there is none more unfair than this perpetual reiteration of the sceptic and the atheist, that it is truth they seek. Does the Professor suppose that all the wisest and best men among every denomination of Christians, are not quite as earnest in the search after truth as he is?

Dr. Tyndall and the materialistic psychologists speak contemptuously of metaphysics, yet it is curious to observe how frequently they have recourse to language of a metaphysical character. The following passage is an illustration of this:—"The term *Vorstellungsfähigkeit* [power of representation] as used by me means the power of definite mental presentation, of attaching to words the corresponding objects of thought, and of seeing these in their proper relations, without the interior haze and soft penumbral borders which the theologian loves." Here we have an instance, not only of metaphysical phraseology, but also another specimen of the pleasure the Professor feels in ridiculing the clergy. He prides himself on his *Vorstellungsfähigkeit*, but anyone familiar with his writings must have remarked that his own mental vision is not always free from mist.

In order to illustrate the sufficiency of matter to produce all the marvellous beauty of the vegetable world, he draws a most illogical comparison between the growth of a tree and the action of an ingenious acoustic instrument devised by Sir C. Wheatstone, which Dr. Tyndall describes in this manner:—"There is an experiment, first made by Wheatstone, where the music of a piano is transferred from its sound-board, through a thin wooden rod, across several silent rooms in succession, and poured out at a distance from the instrument. The strings of the piano vibrate, not singly, but ten at a time. Every

string subdivides, yielding not one note, but a dozen. All these vibrations and subvibrations are crowded together into a bit of deal not more than a quarter of a square inch in section. Yet no note is lost. Each vibration asserts its individual rights; and all are at last shaken forth into the air by a second sound-board, against which the distant end of the rod presses." . . . "I turn to my tree and observe its roots, its trunk, its branches, and its leaves. As the rod conveys the music, and yields it up to the distant air, so does the trunk convey the matter and the motion—the shocks and pulses, and other *vital actions* which eventually emerge in the umbrageous foliage of the tree." It requires only a small acquaintance with the first principles of acoustics and vegetable physiology to see the fallacy of this parallel. One part of it is merely an illustration of the mode in which sounds may be conveyed rapidly, to a great distance, by a vibrating medium. Far different is it with the other part of the parallel—with the gradual growth of a tree, which requires for its accomplishment a variety of processes, under the control of *vital* force. Dr. Tyndall is himself driven to the necessity of using the words *vital actions*, although he denies the existence of vitality.

Dr. Tyndall, whose object it is of course to exalt matter and lower mind, quotes Tertullian as an authority for the materiality of the soul, and "wonders what would have happened to this great Christian Father amid the roaring lions of Belfast." Tertullian was a bit of a roaring lion himself, and had Dr. Tyndall been better acquainted with his history he would have known that, however valuable he may have been as a witness to the truth of Christianity, he had no claim to be looked up to as an authority on metaphysical questions. Gabriel Seigneux de Correcon, in his notes to Addison's Evidences of the Christian Religion, gives the following sketch of Tertullian's character:—"Upright and zealous, but at the same time very rigid, and unpardonably intolerant towards those he deemed heretics; he calls Marcion a sailor and a Scythian, not recollecting that St. Peter had been a fisherman, and that Anacharsis, an acknowledged great philosopher, was of Scythia; or rather not recollecting that personalities are of no weight, and can injure no one but their authors. Too ardent not to be precipitate, he has been accused of want of judgment. His credulity showed itself in one of his works. To prove the materiality of the soul, he quotes an enthusiastic woman, *who asserts she has seen one.*" When Dr. Tyndall discusses metaphysical and theological subjects, his ignorance of such matters becomes lamentably apparent.

Having reduced soul and mind to matter, the Professor, with that inconsistency for which he is so conspicuous, immediately takes flight in an opposite direction, and suggests that vegetables may possibly be endowed with consciousness, and minerals with properties which are only conceded to living organisms. Consciousness is incompatible with the absence of a nervous system; it is therefore impossible to believe that the lowest animal organisms, such as *Amœbæ* and *Bacteria*, much less any form of vegetable life, can possess this property. In confirmation of his hypothesis Dr. Tyndall refers to the fly-catching *Dionæa*; but the closing of the leaf of this plant and the movements of the sensitive plant cannot be explained in the same manner as the vital movements of animals, and are probably of quite a different nature. Is it not possible that they may be owing to electricity? The Professor would probably render a great service to science if he would turn his rare powers as a scientific experimentalist in this direction. As to the notion that minerals may have the power of responding to irritants—it is so extravagant that it requires no comment. I presume it is only another of those wild flights of fancy which the Professor dignifies with the title of the “scientific use of the imagination.”

Having made *Vorstellungsfähigkeit* (which, as I have before stated, he defines the power of definite mental presentation) the basis of his reasoning, it might be expected that his language would be of the most rigidly exact character; and it would be startling (if the Professor had not accustomed us to his contradictory opinions) to find him, after ignoring the ideas of vitality and mind, and after discovering *in matter* “the promise and potency of all terrestrial life”—it would be startling, I say, to find him writing in the following strain:—“Nor am I anxious to shut out the idea that the *life* here spoken of may be but a subordinate part and function of a *higher life*, as the *living* moving blood is subordinate to the *living* man. I resist no such idea as long as it is not dogmatically imposed. Left for the human mind freely to operate upon, the idea has *ethical vitality*; but, stiffened into a dogma, the inner force disappears and the outward yoke of a usurping hierarchy takes its place.” In the name of common sense what notion can any one have of ethical vitality, whose reasoning has a tendency to destroy the foundation of all religion. Morality has ever been based on religion; destroy this basis, and substitute for it materialistic or utilitarian doctrines, and where would be its vitality?

But waiving the consideration of this higher life, I will turn to the question of life, simply as it is exhibited in our

bodily organisation. The majority of our most eminent physiologists (I am not speaking of the materialistic physiologists of the present day) have used the term vital force or vitality to group together and generalise a large number of facts which, in our present state of knowledge, cannot be explained by physical force. But if Dr. Tyndall really believes that all the phenomena generally understood as vital are solely the result of atomic power, what right has he, strictly speaking, to employ any term implying vitality in his argument?

Immediately after warming himself up to a sort of almost religious sentiment, the Professor falls back again into the cold depths of materialism. Following close on his remarks on vitality are others in the following strain: "The problem before us is, at all events, capable of definite statement. We have on the one hand strong grounds for concluding that the earth was once a molten mass. We now find it not only swathed by an atmosphere, and covered by a sea, but also crowded with living things. The question is, how were they introduced? . . . The conclusion of science, which recognises unbroken causal connection between the past and the present, would undoubtedly be that the *molten* earth contained within it *elements of life*, which grouped themselves into their present forms as the planet cooled."

I am willing to try conclusions with Dr. Tyndall on the assumption that the earth was once a molten mass. I would not do so on the assumption that it was once a frozen mass. As regards animal life, Dr. B. W. Richardson has clearly demonstrated that if the animal temperature be raised to eleven degrees above the natural standard, death is inevitable; on the other hand, the degree of cold from which an animal might recover was so great, that he was obliged to leave the fatal degree indefinite. If, then, the earth was ever liquefied by fire, every form of life, if there had been any, must have been destroyed; it must therefore be admitted that this life itself, this birth, this growth, this mystery, we cannot yet comprehend, must have been superadded to matter after the creation of the earth. Dr. Tyndall would probably reply that he does not deny that there is a marked difference between organised and unorganised structures, and that intense heat would be fatal to what we call life; but that he believes that the molten mass contained the *elements of life*. By this vague expression I presume he means the old story of the potentiality of atoms. The *onus probandi*, however, that matter and physical force can produce a living germ, rests with Dr. Tyndall. Can he advance a single instance in which there is the faintest shadow of a proof that a living cell has been educed by any chemical,

electrical, or mechanical process? As regards spontaneous generation no one is a more decided unbeliever in this doctrine than himself. When he has succeeded in manufacturing a little Bacterium—leave alone the Cingalese Fern, the beauty of which he has so eloquently pictured—I shall become a convert to his hypothesis.

“The conclusion of pure intellect points this way [to scientific materialism] and no other.” This is the Professor’s dogma; which, however, is immediately followed by passages which cannot be considered as the offspring of pure intellect; they rather seem to result from that cloudiness of mental vision which he admits that he occasionally experiences. He says: “But this purity is troubled by our interests in this life, and by our hopes and fears regarding the life to come. Reason is traversed by the emotions; anger rising in the weaker heads to the height of suggesting the compendious shooting of the inquirer would be an act agreeable to God and serviceable to man. But this foolishness is more than neutralised by the sympathy of the wise; and in England at least, so long as the courtesy which befits an earnest theme is adhered to, such sympathy is ever ready for an honest man. None of us here need shrink from saying all that he has a right to say. We ought, however, to remember that it is not only a band of Jesuits, weaving their schemes of intellectual slavery under the innocent guise of education, that we are opposing. Our foes are to some extent they of our own household, including not only the ignorant and the passionate, but a minority of minds of high calibre and culture, lovers of freedom moreover, who, though its objective hull be riddled by logic, still find the ethic life of their religion unimpaired.” This is mere rhapsody. What does Dr. Tyndall mean by anyone’s contemplating the “compendious shooting” of any inquirer? I never heard that anyone ever expressed a wish to shoot him or any other inquirer; if anyone had done so, it would have been not only foolish, but criminal. Who are these terrible foes in our own household of whom he seems in such dread? and what does he mean by the hull of their religion being riddled by logic, though they fortunately still maintain, in spite of the shots from the materialistic battery, the ethic life of their religion?

The Professor, in his seesaw manner, goes on to repeat the same arguments as he used in the Belfast Address. We have again the stereotyped sneer of the atheist, who accuses those, who believe in a Creator, of anthropomorphism, of making their “God” “a large *Individual*, who holds the leading-strings of the universe, and orders its steps from a position outside it all.” In answer to this, I can only repeat

what I have elsewhere observed, that the word Creator is never intended to convey the notion of the "technic of man," but is our only mode of expressing our conception of the might and mystery of the Author of all things. How can man, with his finite faculties and limited language, speak of *Infinite* Power in other than *finite* words?

Dr. Tyndall's atheistic proclivities become more apparent towards the close of his article. He hesitates to admit, with Gassendi and Clerk Maxwell, that even the atoms were created, and remarks "that little profit to the human heart seems derivable from this mode of regarding the Divine operations." Having thus rejected all creative power, both direct and indirect, what remains but Atheism?

With an air of triumph the Professor asks whether an egg is matter, and whether the gradual additions made to the human *ovum in utero* during the period of gestation are matter or not, and then jumps to the conclusion that *matter* "is the mysterious thing by which all this is accomplished." What can be more illogical? He confounds cause and effect. Of course everyone is aware that living organisms derive their nourishment from matter; but the question is, are not living germs, which appropriate and assimilate matter by their inherent vital force, totally different from any known combination of atoms the result of physical force?

The concluding paragraph of the reply is so extraordinary that I cannot refrain from quoting it at length: "The world will have religion of some kind, even though it should fly for it to the *intellectual whoredom of spiritualism*. What is really wanted is the *lifting power of an ideal element* in human life. But the free play of this power must be preceded by its release from the *torn swaddling bands of the past*, and from the practical materialism of the present. It is now in danger of being strangled by the one or stupefied by the other. I look, however, forward to a time when the strength, insight, and elevation, which now visit us in mere hints and glimpses during moments of clearness and vigour, shall be the stable and permanent possession of purer and mightier minds than ours—purer and mightier partly because of their deeper knowledge of matter and their more faithful conformity to its laws." What does he mean by the lifting power of an ideal element, which is ultimately to supersede the old-fashioned notions derived from the Bible? He has just before stated that matter will account for all the mysteries that surround us. Is it, after all, Pantheism that the Professor is driving at? Why does he not state, in plain language, what he does believe, beyond the potency of matter? What does he mean by his refined expression, "intellec-

tual whoredom of spiritualism"? Have his opponents ever used any language half so bad as this? Is materialism less meretricious than spiritualism? He looks forward to a sort of millennium, when the ideal element shall regenerate the world through the more perfect knowledge of the laws of matter. In the meanwhile, those who think that literature and art are as ennobling as physical science, those who have neither time nor inclination for scientific pursuits, and the multitudes of the poor and heavy-laden, who have hitherto derived comfort from their religious belief, must be looked upon as poor, ignorant, credulous creatures, the mere victims of a delusion. Happy indeed is it that, even by the Professor's confession, the world will have religion!

Dr. Tyndall, in a note to the *Times* of the 28th of January last, says, in reference to spontaneous generation, "The dialectic dust of Dr. Bastian's letter I leave to the slow sure process of self-subsidence." The cloud of cosmic dust which he himself has raised may be safely left to the same sure process.

Five years since I wrote a little satire for circulation amongst my friends, with the hope that the *reductio ad absurdum* might be of some use to those who had no fixed creed. I would commend it to the consideration of those School Boards which are opposed to religious instruction. It was after this fashion:—

A CATECHISM OF ADVANCED VIEWS.

Designed for the benefit of the rising generation.

Question.—What is your name?

Answer.—Tom Paine.

Question.—Who gave you that name?

Answer.—The Registrar of Births, Marriages, and Deaths in the parish where I was born.

Catechist.—Rehearse the articles of thy belief.

Answer.—I believe in the physical constructive forces which made heaven and earth; in Huxley, Darwin, Robert Owen, Bain, Herbert Spencer, Tyndall, and in all who entertain advanced opinions. I also believe in the social system, the folly of marriage, the doctrine of development, the *lifting power of the ideal element*, and the right (Divine I was about to say) of the multitude to govern themselves. I also add, that I believe in the efficacy of elementary drawing, algebra,

and geometry ; studies which have been particularly recommended by Professor Huxley for adoption by the School Board, the great object being to cultivate the intellect, and leave the morals to take care of themselves.

Question.—My good—I mean clever—child, what dost thou chiefly learn in these articles of thy belief?

Answer.—That Christianity is a delusion and a snare, and a stumblingblock to the diffusion of science and civil liberty, and that there is nothing in creation which evidences an intelligent design or a Divine Providence.

Question.—After the wonderfully clever and original statements you have made, I am almost ashamed to ask you if you believe in the Sacraments and the Ten Commandments.

Answer.—Most assuredly not. Man's conduct must be regulated by experience, and his first duty is to take care of himself. As regards his offspring, the abolition of marriage under the social system would render it extremely difficult for a child to know his father; it would therefore be incumbent on the State to provide for his children. I need scarcely remark that the social system especially and forcibly demonstrates the absurdity of the fifth commandment—based on superstition and ignorance—which enjoins that a child should honour his father and mother.

ART. II.—SECOND-SIGHT; OR, DEUTEROSCOPIA.

BY W. A. F. BROWNE, ESQ.,

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"I never could advance my curiosity to conviction, but came away at last only willing to believe."—Johnson's *Tour to the Hebrides*, p. 347.

SECOND-SIGHT must not be confounded with the visions, vaticinations, spiritual apparitions, omens, or auguries which have in all places and periods extorted belief from the sage, the simple, the savage. Deuteroscopia may have a connate origin with these, but admits of the special definition of being an involuntary affection, a supersensuous impression, involving a portent which does not inspire fear or foreknowledge in the seer, who has not, generally, any personal interest in the coming event. It is likewise susceptible of the characteristic description that it is more prevalent in Northern regions, though observed universally; that death or disaster is generally foreshadowed by funeral processions, by corpses so placed as to be connected with the coffin, the cerement, or the cemetery, by shrouds generally concealing the features of the doomed wearer, and the position of which on the body indicates the proximate or remote time of death, and by the facts that the visitation is intimated to those around previous to the fulfilment of the portent, and that real objects are mingled with, or seen beyond, those which are accepted, or recognised, as supernatural, and so on.

It has been customary to identify this mental condition (superstition or delusion is the more popular solution) with the transitory insanity of the Laps, the extatices of the Samoiedes and Ostiaks; indeed, Brierre de Boismont* attributes this group of phenomena to an Arctic climate and cold. Yet Hilbert† gives no positive confirmation of this supposition. The localisation in this country has been limited to the Highlands and Islands, and to the Celtic race, even to Skye and the vexed Hebrides, where the burst-boom of the mighty Atlantic echoes and expends itself amongst the gigantic cliffs which wall in the semi-sterile hills, or morasses; where the shepherd, his flocks—mayhap the hardy deer—secure drowsily and slowly a scanty nourishment; where mists, and exhalations, and long-continued twilight favour visual deceptions; and where a people that have passed recently and rapidly from Paganism‡

* *Des Hallucinations*. 1845, p. 262.

† *Philosophy of Apparitions*.

‡ Note 16, Sir Walter Scott's *Lord of the Isles*.

to Catholicism and to Protestantism, to Christianity without its twin civilisation, and are by constitution gloomy, dreamy, and uneducated, are prone to superstition, to create and to credit imaginary communications and warnings from the world of spirits. Another fallacy, flattering it may be to the spirit or the vanity of the age, has obtained circulation, that the influence of their belief is dead—has died under the doubts and preaching of the priesthood—has been laid by the blaze of enlightenment: yet in Skye, certainly, the focus where the rays of weird illumination from the cluster of islets around were concentrated—where this “local habitation and name” were illustrated by a literature, and by the collection of the largest number of examples extant—it would appear that this belief still survives; and this although the pulses of the steamboat and the scream of the locomotive mingle with the roar of ocean, and the tide of Cook’s tourists bring as various and as curious novelties to the shore as the Gulf Stream, and the doubts and difficulties of Protestantism have supplanted the credulity and sanction of Catholicism as to communion with the unseen and the unknown. If any diminution has taken place in the dominion of such convictions in these remote and ungenial lands, it must be by the migration of such convictions southward. The most copious and authoritative record of such revelations in the region to which they are supposed to be indigenous is to be found in Martin’s Treatise on the subject, incorporating Tracts by Theophilus Insulanus and Aubrey. These narratives were written at different times in the eighteenth century, but are contained in a work called “*Miscellanea Scotica*,” published in 1820. The frequency of this credence may be estimated from the assurance made in the first edition of the Statistical Account of Scotland by the minister of Applecross—still, notwithstanding continued emigration, numbering 1,129 inhabitants—that the belief is general among his parishioners, although they reject that in witchcraft. Martin’s Collection embraces 178 distinct histories, in many instances related to the authors by the seers themselves; in others derived directly from, or traced to, trustworthy sources. An analysis of these facts appears to show that the gift or power of perceiving such marvels was sometimes hereditary, sometimes communicable by touch; that it was never acquired; that there was no college or school of seers or prophets; that it was exercised independently of the will in a trance-coma condition, and often only once in the life of the individual. The senses of hearing, touch, even smell, as well as that of vision, seem to have been channels through which the phantom impressions reached the mind; and the objects or pictures thus conveyed were of the

most different and dissimilar kind—from the sound of a saw employed in the construction of a coffin, or the sight of a corpse or a shroud pointing out the spot on which the vision was to be realised, to the most minute accidents and details of a shipwreck—to the solemn pomp and pageantry of a funeral procession, in which the features and dress of many of the attendants, the texture of the mortcloth, even the name, age, &c. of the deceased, not always known to the seer, were recognised. The import of such intimations was invariably lugubrious, and shadowing forth misfortune or misadventure of some kind. Prescience of the precise evil impending was not always accorded to the observer, who, however, generally announced its approach, its formidable or fatal character, and the person or persons involved. The appearances were visible at noonday as well as at midnight; were seen by many or few, but generally by one seer; assumed the form, aspect, and actual condition and relations of surrounding objects, or were associated with abnormal phenomena—such as seeing and recognising a second and more distant series of objects, houses, animals, &c., previously known to exist through and beyond the supposed spectral illusions. This diaphanous character of the vision, which permits of two distinct impressions passing each other, or being present consentaneously on the retina or in consciousness, is not so frequent as the more inexplicable anomaly of the phantasm or imaginary picture obstructing the view of a real known familiar scene; nor is it peculiar to this locality or its inhabitants, as Müller* refers “the seeing the images of external objects through the phantasms as through a veil” to all Northern visionaries. The concealment of the thorax and lower limbs of a skeleton, who haunted and hunted to death an unfortunate victim, by the body of the physician while the skull peered over his shoulder, when attempting, experimentally, to lay the ghost, is a frightful instance of this peculiarity. Abercrombie† mentions a gentleman who was accustomed to amuse himself by gazing at the furniture seen through an apparition by which he was repeatedly visited. Martin’s long catalogue is swelled and disfigured by numerous incongruities, inconsistencies, redundancies. The latter comprehend dreams, previsions, prophecies, prodigies, which cannot possibly be placed under the category of Second-sight, as they include specimens of almost all spiritual agencies, spread over the whole range of history, from the Siege of Jerusalem and the age of St. Polycarp to the author’s own day. Yet,

* Müller’s *Physiology of the Senses*, p. 1393.

† *Inquiries Concerning the Intellectual Powers and the Investigation of Truth.*

after making ample deductions of what is extraneous and absurd, there remains a residuum, which may be dealt with philosophically, and for the reality of which the amount of evidence adduced is as great as of any event, recent or remote, where legal or judicial evidence has not been obtained—a reality which shall at present be limited to two facts: 1st. That the seer was conscious of seeing certain unusual or exoneural objects; and 2nd. That subsequent occurrences corroborated or confirmed the interpretation attached by the seer to such objects. It would be as legitimate and reasonable to question the trustworthiness of all human testimony, as to denounce the narrators as impostors, imposed upon, deluded, or demented. The Rev. M. Kirk, minister of Aberfoyle, much referred to for supernatural or legendary lore, who is perfectly trustworthy as to human and everyday events, describes, in his “Secret Commonwealth,” the seers as unperverted by their belief, and as intelligent, candid, honest, and sociable citizens.

Either because certain localities are less prolific than others, or because inquirers are less zealous or more accurate, portions of wild and mountainous country at no great distance from Skye, though fertile in ghosts, goblins, warnings, werewolves (*Scotice*, worry-cow), yield no undoubted instance of Second-sight. Thus Mrs. Grant of Laggan,* a clever and popular authoress, in her “Essays on the Superstitions of the Highlanders of Scotland,” published in 1811, embracing the magnificent tract between the Spey and the Spean, gives eight descriptions of apparitions of different kinds, only one of which even approaches the mental condition now under discussion. She writes that one of two widowers, who keenly felt their bereavement, while walking in a wood and conversing upon this subject, threw himself upon the ground, exclaiming, “Alas, that I had but one sight of my dark-haired Anna!” At this very moment his companion saw in a ray of sunshine the figure of the said Anna, and pointed it out to her sorrowing husband; but ere the individual principally concerned could see the apparition, it had vanished, “the flowers remaining unbent where it seemed to stand.”

The easiest course in escaping from the dilemma created by such experiences, is either to deny and disbelieve the facts, or to allow their influence to fade away with the state of society with which they were identified. More strong and stringent remedial measures, however, have been resorted to. In 1824 appeared Dr. Macculloch’s work on the Highlands,† designed and, when

* *Essays on the Superstitions of the Highlanders of Scotland*, by Mrs. Grant, Laggan (London, 1811), Vol. i. pp. 197–276.

† Macculloch’s *Highlands: Letters to Sir Walter Scott*, 1824.

viewed superficially, calculated to dissipate the glamour or roseate romance shed by Sir Walter Scott's genius like a sunset glory over the traditions, social condition, tongue, modes of thinking and feeling of the Celtic race. In his long and clever disquisition upon Second-sight, based, to a certain extent, upon Martin's observations, Dr. Macculloch employs the weapons of scornful satire and scepticism, and, even where reasoning is resorted to, the basis is rather that of humour than of logic. He first uses the universal solvent of disputing the occurrence of every supernatural impression, whensoever or wheresoever such may have been recorded; but, suspecting that this *aqua regia* may be rejected, as inapplicable to many of the moral difficulties presented, he condescends to enumerate a long series of secondary explanations, which are true within a certain, but only a certain range.

Among these causes, the operation of which cannot be conceived to be limited to the Highlands, are dreams, delirium, hypochondriasis, lazy indolent rumination, shepherd life, superstition, remnants of their ancient creeds, and starvation. By a singular inappreciation of the difference and irreconcilability of the antecedents and positions of the seers, he cites the miraculous temptations of St. Anthony and the enthusiastic endurance of St. Simon Stylites as illustrative of the Taiseh of Hebridean carle or cobbler. In his wide survey and exposure of supposed spectral appearances, Dr. Macculloch admits that Second-sight is not more preposterous or incredible than many convictions that have been admitted and cherished by kings, mathematicians, divines, even sceptics—by those of high intelligence and pure life; but he scouts, and justifiably scouts, the theory that what many or the majority of men believe must necessarily be true. But this is not logically the point at issue. The proposition which he was called upon to determine was, can it be that a faculty or feeling to believe in the marvellous, and to receive impressions which are not communicated by the external senses, be given merely to deceive, to plunge in error and fear, and to disturb the ordinary manifestations of mind without benefit or purpose?

A more formidable because scientific critic and commentator on such relations was found in Sir David Brewster, in his "Natural Magic," 1838. His principle is, that the pictures reaching consciousness may be so distorted by the physical condition of the organ of sight, and may be so influenced by certain optical laws, or deviations from such laws, as to suggest or represent the phenomena regarded as supernatural or spiritual. In his essay, avowedly written for the purpose of demonstrating the fallacies and delusions which may arise from accidental or

diseased deviations from the ordinary and natural laws of vision, he conceives that the origin of apparitions may be traced to the following facts and experiments:—

1. Phosphorescence, iridescence, and ultimately redness, are produced in the interior of the eye by external pressure on the ball, or by disorganisation of its structure, as is noticed in double-vision, half-vision, colour-blindness, &c., and the insensible part of the retina may be stimulated by impressions falling upon other parts of the eye.

2. That when the eye is directed on a burning fire, or irregularly-shaded surface, a variety of distinct forms, such as letters, sentences, appear.

3. That the spectral illusions always appear in front of the eye, and partake in its movements, exactly like the impressions of luminous objects, after the objects themselves are withdrawn. This continuity is exemplified in the cases of Newton, Boyle, &c., where the image of the sun was retained for several years—such impression generally lasting only for one-eighth of a second.

4. By looking steadily at one coloured wafer, you lose sight of another coloured wafer on the same sheet of white paper, and so whenever one object is intently and steadily regarded—such effects being varied by the colour of the object and luminosity of the atmosphere.

5. All objects seen directly are seen indistinctly; and confusion is produced by effort to direct the eye upon objects through an indistinct medium, or in darkness, when the pupil is so dilated that near objects can only be seen imperfectly.

6. Spectres are seen as white, because this colour is the only one that can be seen in imperfect media, and will assume a different form (human, for instance), according to the actual colour, &c. of the object seen.

7. Spectral colouration, effected by fixing the eye upon a particular colour.

8. Deceptions produced by whirling a lighted stick, or by the Thaumatrope

9. Deceptions from luminous objects in or near the eye, as where a speck of sealing-wax on the palpebræ reflected images of candles above and behind the head of the observer.

Sir David Brewster puts, hypothetically, that if a living figure had been projected against the strong light which imprinted these durable spectra of the sun mentioned above, which really might happen when the solar rays are reflected from water, and diffused by its ruffled surface, this figure would have necessarily accompanied all luminous spectres which the fancy might create; but he confesses that no

supernatural effects have been actually produced by the causes described. He however asserts, as an event coming within his own knowledge, that a figure dressed in black, and mounted on a white horse, proved to be, from the state of the atmosphere, &c., a figure in white upon a black horse. An actual spectre in dark habit, on a white horse, is asserted to have saved a clergyman from murder, but there is no evidence of any substratum, or plane for reflection.* Like other philosophers of this school, Sir David Brewster naturally and inevitably holds that the retina is the seat of the supernatural, and that the images from without and the spectral illusions from within equally impinge thereon, differing only in the degree of vividness. Postponing any examination of such a theory, and taking each of the sources of fallacy described individually, or taking the whole together, there would be required as great an amount of credulity to accept them as explanatory of spectral illusions as is required to place implicit faith in apparitions, Second-sight, &c., such as it is the aim of physicists to account for. We are inclined to echo the opinion of Müller: "The spectral phenomena, or visions, are not more extraordinary than the ordinary function of sight." How, for instance, could any or all of the deviations from natural and direct vision, whether referable to ocular or atmospheric phenomena, even if dread or disturbing emotions were superadded, produce or elucidate any of the visions, and above all the culminating apparition in Mrs A.'s case, upon which Sir David Brewster builds so much—where a carriage-and-four is seen by her, when seated in her drawing-room, driving up the avenue to the porch of her house, in bright daylight, which was occupied by skeletons, the postilion himself being a skeleton? It suggests a smile and a suspicion, when the same writer, obviously distrustful of his previous premisses, declares that the cause of the spectres of Nicolai, Mrs. A., &c., was "deranged action of the stomach." Indigestion, in common with every form of disease, undoubtedly influences all mental operations, and the manner in which the communications from the external senses are received by the mind. Health, however, is a mere abstraction, and, although intelligible under the words *mens sana in corpore sano*, is, perhaps, never positively possessed by any individual. The cradle may be denominated a miniature or potential coffin, as in the tiny body which it contains begins at once a succession of transformations and changes, developments, diseases, in preparation for death, all of which are accompanied by characteristic phases of instinct, ideation, and passion. But it is not

* *Bourchier*, see p. 16.

demonstrable that such conditions, whether physical or psychical, except in insanity, subvert the will, the intellect, or the laws of perception and belief. It would be "a leap in the dark," a transcendentalism which even modern physiologists would repudiate, to assert that any bodily ailment or unhealth placed us in nearer relations to the supersensuous or the supernatural—in other words, prostrated us as victims before superstition and delusion; or that certain modifications of unhealth may not rouse and raise greater mental energy, perspicacity, and illumination; or that some of the greatest efforts of genius, and even of useful discovery, have been prosected contemporaneously with, and in despite of, decrepitude, decay, and suffering—as in the cases of Pascal, Coleridge, &c. Dyspepsia is the concomitant or heritage of a gluttonous and luxurious indulgence, and of a state of society such as at present prevails; so that the frequency of apparitions among the wealthy, the worldly, the delicate and refined, and their supposed rarity among those whose diet is porridge and potatoes, and who have no access to condiments or golden vintages, may to a certain extent be explained. But there appear no data for regarding the Second-sight-seers as diseased, or other than as robust, hardy, abstemious mountaineers: sometimes educated, and not disturbed in sentiment or sensuality, receiving the impressions, which they accepted and interpreted as coming from another world, without excitement, in their own homesteads, in their daily walk and work of life, clothed in familiar guise, and, so far as can be learned, unaccompanied and unmystified by any affections of the organs of vision, or by any new combinations or corruscations of the grey and sober lights which fell around, or by any colouration than that of their native heather.

Dr. Carpenter, an able censor and expurgator of all spiritualist phenomena, has, within a short period,* essayed a new exposure of such impressions. The central gist and gravamen is to show that science, and that vague and vapouring process called "human progress," are undermining beliefs; that, in Locke's words, "the doctrine proves the miracle, not the miracle the doctrine;" but in his sweeping generalisations he includes all convictions that cannot be logically or mathematically proved. As sources of fallacy, in dealing with the miraculous, the mysterious, even the unusual, he enumerates—1, prepossession; 2, the non-correspondence of states of consciousness with external impressions; 3, the accordance of the impression and its interpretation, being the effect of mental character or condition; 4, mental expectancy of result; 5, fixity of gaze; 6, religious enthusiasm;

* *The Fallacies of Testimony in Relation to the Supernatural*, by Dr. W. B. Carpenter: *Contemporary Review*, January 1876.

7, prejudice in limitation of evidence ; 8, amplification of simple into romantic fiction ; 9, popular opinion ; 10, fear, as under Obi curse ; 11, unquestioning faith in external power ; 12, action of mind on body. While most thinkers would experience as much difficulty in discovering a physiological law explanatory of the removal of the tumour, by mere reliance on the prediction of Sir J. Paget that it would be removed, as in believing that the removal was the result of Divine interference, and while it may be readily conceded that the intellectual defects and emotional disturbances do elucidate or fully explain many of those impressions which are vulgarly regarded as supernatural, it becomes imperative to inquire as to the causation of such impressions when received by the impassive, the indifferent, the doubting, the disbelieving—when there is no prepossession, no expectancy, no faith, no fear, no influence of prejudice, popular opinion, and no corporeal excitement or malady. By such a process any body of facts might be so disintegrated and dissipated as to render an actual witness doubtful as to the evidence of his own senses, and to place any secondhand relation under the same category that the existence of Napoleon I. was rendered by the destructive analysis of Archbishop Whately.

There are, however, affections of the nervous system which it has been conceived may be assimilated to the state of Deuteroscopia, or to be reducible to the same psychical elements. Socrates is reported to have stood immovably in front of the army in which he served for twenty-four hours, gazing fixedly forward, perhaps into futurity, and perhaps in concert with his familiar spirit, “as if his soul were absent from his body.” George Foxe, the heresiarch, lay for fourteen days mute, motionless as if dead, “but his sleep was full of divine visions of beauty and glory.” Engelbrecht, previously subject to sensorial illusions, and after protracted fasting, revivalism, and forebodings, became partially unconscious, receiving occasional intimations from without, while transported to the spiritual world as a participant in things unspeakable, while he remained for twelve hours with rigid and insensible limbs, and as if vision and life were extinct. Closely allied to these states are death-trance, trance-coma, trance-sleep, somnambulist trance, whether natural or artificial ; but these differ mainly and materially from Second-sight in the complication of the muscular system, in the suspension or perversion of the external senses, in the acts of consciousness being visions, but not previsions, and in the revelations consisting of imaginings, not of surrounding objects. The perversion, conversion, or transference of sensibility has been principally marked in somnambulism, where difficult and dangerous acts have been performed with the eyelids closed, where

sounds reach the ear only when in the circle, or connected with the perception present, or the predominating feeling; and where it has been asserted the functions of the eye, the ear, and of the other channels of sensation, have been exercised in remote parts of the body, in normal states endowed only with common sensation, and all this without any knowledge or memory on the part of the individual. Thus, in the celebrated and often-quoted case, resting upon the authority of the Archbishop of Bordeaux,* a student rises nightly during profound sleep, rules selected paper, writes themes, music, corrects and improves his manuscript, even when pasteboard is placed between his face and the objects to which attention is directed, even knowing when his pen requires ink, when the paper is changed, &c.; or, in the more common but equally curious instances, when the sleep-walker ascends precipices, roofs of houses, rides long distances, and performs acts and feats to which when awake he is unaccustomed, and of which he is incapable—there appears to be a creative, adaptive, and new-developed power independent of consciousness. There is no exact parallel of correlative manifestations in Second-sight, but rapture and ecstasy have been observed to accompany the prevision of which we treat. Trance may be represented by a concentrated stare, and in one case it is said that the eyelids required to be readjusted; but the discriminating properties of the seer are, that the portent is shadowed forth by ordinary occurrences or objects: that the pictures, whatever may be their nature, are compatible with perfect health in the participant, and are unaccompanied by fear, or wonderment, or perplexity.

There are, besides, conditions which are closely allied to that under consideration by many points of coincidence, especially by the characteristics of spiritual apparition and portent. Without attempting to systematise or exhaust these, they may be fairly classified under the following heads:

I. Where the spectre or semblance of a deceased person, or of one about to die, appears to a friend or acquaintance at the moment or time of death, not to prefigure, but to announce, event.

The following illustrations of this order may suffice:

1. Two young officers of the 33rd Regiment, subsequently distinguished as Sir John Sherbroke and General Wynyard, are, at 4 p.m., October 1785, in broad daylight, seated in their barrack-room in Cape Breton. The room had two doors—one from a passage, one into a bedroom, from which there was no other exit. Sherbroke, raising his eyes from his studies, saw at

* *French Encyclopædia: Mayo's Popular Superstitions*, 1851, p. 103.

the former entrance a tall emaciated youth, clothed in summer costume, while they were wrapped in their winter furs, and who cast a melancholy glance on his companion, as he seemed to enter the inner room. The latter, having his attention directed to the figure, horror-stricken exclaimed, "Why, good God, that's my brother!" There was no brother in the body there. Willing to regard the appearance as a practical joke, silence was at first observed, but the anxiety and misery of the sufferer revealed the cause to his brother-officers long before any explanation could be obtained. That at last arrived from England in the announcement that Wynyard's favourite brother had died, making an allowance for the difference of latitude, at the precise moment when he was supposed to be seen at Cape Breton. Both officers until their death believed that they had really seen this apparition.

2. Captain Wheatercroft, an officer in the Inniskilling Dragoons, having exchanged into the Carabineers, was present, and was gazetted as having perished, at the siege of Lucknow, on the 15th November, 1857. His wife, who remained with her mother in Cambridge, on the night of the 14th November, saw, first in dream, and then apparently standing by her bedside, her husband, wearing his regimentals, agitated, pain-stricken, but not blood-stained. The image remained sufficiently long that she noted particulars, such as the whiteness of his shirt, &c. So convinced was the lady of the reality of this interview, that she disclosed her secret to her mother, and reported herself as a widow. Delay and difficulty occurred in reconciling the discrepancy which existed between the official report in the War Office and the conviction of Mrs. W.; but ultimately, six months afterwards, it was placed beyond a doubt that Captain W. fell in a charge on the 14th. A painful blunder was thus corrected by an apparition, whether seen by the material or the mental eye.

3. Mr. John Williams, of Scorrier House, a man of property, probity, and practical talent, sees in the lobby of the House of Commons (where he never had been), on the 12th of May, 1812, a man with the precise lineaments and habitual dress of the Prime Minister, Mr. Perceval (whom he had never seen), and another man dressed in a brown coat and yellow basket-buttons, being the dress of Mr. J. Bellingham: the latter drawing a pistol from under his coat, and discharging it at the former, who instantly fell, bleeding from a wound in the left breast. He was then told that the victim was Mr. Perceval. This dream, or spectral drama, passed thrice before him during one night, twenty-four hours after the murder had been committed, and was described to his wife, and to a numerous circle of acquaintance, long before intelligence of the cir-

cumstances reached or could reach Cornwall. The exactitude of the appalling picture presented to or by his imagination with the actual scene was afterwards verified by the accounts transmitted from London, and on his visit to the place where the tragedy was perpetrated.*

4. Lord Chancellor Brougham, while travelling in Sweden, arrived at a country inn, cold and fatigued. While taking a hot bath, and enjoying the luxury of the warmth, he saw, seated on the chair where he had deposited his clothes, G——, with whom in former years he had held many and animated discussions as to the Immortality of the Soul, and with whom he had entered into a compact, written in their blood, to the effect that whoever predeceased the other should return from beyond the grave, and thus resolve the awful problem which had agitated their youthful doubts. His Lordship seems to have been powerfully affected, as he afterwards fainted. This occurred, and was recorded at the time, on the 19th December, 18—. Although he had almost forgotten the existence of his early companion, he had a clear recollection of their agreement, and, although attributing the vision to dream, he seems to have accepted the warning. From feelings of shame and agitation, he does not appear to have mentioned this strange eventful history to anyone, either then or subsequently, although its influence is confessed by him to have been unfading. On his return to England, he received letters announcing that the death of G—— had taken place on the day when the apparition was seen. This story, here condensed, was transcribed in its entirety by his Lordship into his diary, 16th October, 1862.† This is nearly a parallel to the death-pledge between the Marquis de Rambouillet and the Marquis de Précy.‡

These cases are selected because they are not deformed by fanatical or sensational adjuncts, because they affect notable or notorious individuals, personages little likely to be influenced or deceived by superstitions, national prejudices, or defects of education. Had there been any disposition to introduce the marvellous or the horrific into the inquiry, there would have been preferred such confessions as that of the celebrated Marshal Blucher, made to his royal master, the King of Prussia, immediately before his dissolution, who, demanding to be tested as to his reason and self-possession, clearly and circumstantially recounted that, after the sad struggles of the Seven Years' War, he returned to his native home, arrived in a dark stormy night,

* Abererombie's *Inquiries Concerning the Intellectual Powers*, p. 301, 5th edit.

† *Life and Times of Henry, Lord Brougham, written by Himself*, vol. i. ch. iv.

‡ Calmet's *Phantom World*, vol. ii. p. 143.

found the house closed and in darkness throughout; but the front door yielding to his knocking, or spontaneously, he groped his way to his father's accustomed room, and there saw, by a dim light, both his parents and four sisters. His father waved off his embrace, he kneels before his mother as if in one of the sportive games of childhood, while his sisters whisper inaudibly; but the act reveals to him that his parent is a skeleton, and that the whole spectacle is a shadow of past misfortunes and death. At the crisis, impelled by terror, he escaped; but returning, to realise the whole truth, and to inter the remains of his family, he found only a female hand wearing a golden bracelet on the floor of the apartment where the apparition appeared. The same group of spectres again appeared to him two months previously, announcing that his death would take place on the very day and hour when he was addressing the King. The narrative has been purposely denuded of all appalling and melodramatic features, but when it was concluded, the King held the hand of a corpse!

On the other hand, had it been desirable to widen the illustration by an immense accumulation of instances, the Catena constructed by Glanvil* (1726), or by Howitt† (1863), would have been reproduced. The latter, in addition to a long catalogue of special examples, declares his opinion that the belief in such is universal, that every family could afford testimony of the same kind, and that one member of the Cambridge Ghost Club had collected 2,000 of a similar kind. Mr. Howitt's instances range from the knockings, sawings, rappings in the house of John Wesley, and similar unexplained and inexplicable sounds and signs, to the perfect personification and significant warnings of recognised individuals.

II. The second order is where the spectre or semblance of a deceased individual appears to a living and indifferent individual in order to predict the death of a third party. Of this division it is only necessary to adduce the statement that the apparition of the father of Villiers, Duke of Buckingham, stood by the bedside of Mr. Twose, in Windsor Castle, who had been in the household, and knew all the members of the family; and, through his instrumentality, thrice premonished his son, that unless he ingratiated himself with the people, by changing his measures, he must die, strengthening his counsel by disclosing two secrets known only to the parties principally concerned. The revelation was conveyed to the Duke, and believed in by his mother; but although he admitted its truth, and the

* *Evidence Concerning Witches and Apparitions*, by Joseph Glanvil, 1726.

† *History of the Supernatural*, by William Howitt (1863), pp. 428-460.

accuracy of the test, he did not adopt the counsel, and died by the hand of Felton. A similar omen or oracular intimation is said to have been conveyed to Louis XIV. The psychical relations of the dead with the living are solemn, perhaps inscrutable, but it would be a retrograde philosophy to pronounce all incredible which is inexplicable.

III. The third order is where the spectre or semblance of the deceased appears to a living person, with whom or with whose family some previous connection had existed; and for some purpose, affecting the seer it may be, or to predict death, misfortune, or impending events, involving himself or his connections. The following examples may be cited:—

1. The clever, profligate, infidel Lord Lyttelton was awakened, during the night of the 25th November, 1779, by the fluttering of a bird, which gave place to a figure recognised as Mrs. Amphlet—whom he had greatly injured, and who had expired immediately before she was perceived by him—who warned him, first spontaneously, and then in reply to a direct question, that he must die within three days. Sceptical as to this communication, he pursued his ordinary course, preparing a speech to be delivered in Parliament on the subsequent day, entertained a party in his own house, and tried (in his own words) “to jockey the ghost” beyond the prescribed hour; but died at twelve o’clock exactly on the third day, while retiring to bed. Almost at the moment of his death Lord Lyttelton appeared in the bedchamber of his friend Andrews, who had been prevented from attending his lordship’s party on the same night, and uttered the words, “Ah, Andrews, it is all over!” Although an understanding had existed between these individuals that he who died first should appear to the survivor, Andrews treated the supposed intrusion as a jest, and cast his slipper at the disturber of his rest.

2. Lord Chancellor Erskine encounters in Edinburgh the family butler, who seemed greatly changed, but who stated that he was in search of him, in order to secure his interference that a sum of money due to the speaker, but of which he had been defrauded at the last settlement by the steward of his father, might be refunded. He asked the butler to follow in order to prosecute the inquiry, but the semblance had passed away. Recollecting the residence of the man’s wife, he discovered that he had been dead for some months, that he had revealed his wrong on his deathbed, adding that when “Master Tom” (the future Lord Chancellor) returned, “he would see her righted.” The allegation was correct, and restitution made. This impression, although received in youth, was declared by the narrator to be “indelible.”

3. During the American War of Independence, two officers of rank, seated in their tent, heard the voice of their comrade-in-arms, Major Blomberg, at the door, earnestly enjoining one of them by name to seek for a certain box, in a room in a house (all minutely described), as it contained documents of great importance to his infant son. On inquiry the sentinel had seen nothing, but intelligence was obtained that Major Blomberg had been surprised and killed. On the return of the parties to England, the house, box, &c. were easily found. The papers contributed to secure an heritage to the child, who, in consequence of the interest created by this tale, was chosen by Queen Charlotte as the foster-brother of George IV.

4. We are indebted to fiction for by far the most picturesque and popular illustration of this class, in the Bodach-Glas (grey spirit) which appeared to Fergus M'Ivor on the eve of his capture and execution, as it is recited he had so appeared to his ancestors immediately before death. But the magic wand of Sir Walter Scott's genius had in this, as in every instance, converted every object it touched into "a thing of beauty and a joy for ever." For we find, from another of his works,* that the genuine familiars or spiritual watchers and warders of Highland-families were in that of Grant of Grant (now represented by Lord Seafield), a girl with a hairy arm; in that of Grant of Rothiemurchus the Bodach-au-dun, or Ghost of the Hill; and that the Ban-Schie, associated with so many clans and Highland communities, was nothing more than an old woman, in a blue mantle and streaming hair, who shrieked piteously, in prognostication of disaster to those to whom she was attached. But modern times, and persons whom we might have touched, afford similar evidence.

5. The late excellent and justly popular Earl of Eglinton—whose sudden death was truly felt as a national loss in Scotland, and who is famed for an attempt to revive an ancient custom of mediæval times by the Tournament held at Eglinton Castle in 1839—was engaged, on the 4th of October 1861, in playing, on the Links of St. Andrews, at the national game of golf. Suddenly he stopped in the middle of the game, exclaiming, "I can play no longer—there is the Bodach-Glas. I have seen it for the third time; something fearful is going to befall me." Within a few hours Lord Eglinton was a corpse; he died the same night, and with such suddenness, that he was engaged in handing a candlestick to a lady, who was retiring to her room, when he expired. Henderson, in "Folk Lore," mentions that he received this account of Lord Eglinton's death from a Scotch

* Notes to Canto III., *Lady of the Lake*.

clergyman, who endorses every particular as authentic and perfectly true.*

The stories of Lord Tyrone and Lady Beresford, and of Colonel Gardiner, have been avoided, both because they are hackneyed, and have been so appropriated to religious purposes as to be almost removed beyond the pale of literary discussion.

IV. Where spectre or semblance of deceased intimates to strangers death, or evil by foul means :—

1. A coach driving to Oxford, in a dark snowy winter night, comes into contact with some object, which the coachman and passengers had the moment before conceived to be a countryman in a blouse, to whom they holloa'd in vain. Immediately afterwards the coach was tilted to one side, as if the wheels had passed over a solid substance of some size, which it was dreaded might be the body of the labourer. The search at once instituted revealed neither traces of the living nor corpse of the dead ; but at the next stage, the scared looks of the stablemen, on hearing of the frightful suspicion that a man had been run over, provoked further inquiry, when it was ascertained that a man had been murdered, exactly a year before, on the very spot where the imaginary accident had occurred.

2. Mr. Hamilton related to Captain and Mrs. Hastings that, failing to find suitable accommodation in the town of Portsmouth, he sought shelter in a small alehouse in an obscure lane, where the arrangements were so bare and humble that he had to promise a large premium in order to secure a bedroom for his own use. In this apartment, which contained two unoccupied beds, he retired early to rest, having previously secured the door. He awoke during the night, and saw in the bed opposite what appeared to be a sailor, semi-recumbent, wearing immense black whiskers, and having a red handkerchief round the head. He suspended his indignation, and again fell asleep ; but, in the morning, the light enabled him to see that his companion was still there, and that the redness of the bandage was caused by blood. While dressing, the impression ceased. Threats, and the vividness of the scene depicted, extorted from the conscience-stricken landlady the confession, that a sailor, wounded in a fray, with the aspect, dress, and bandage, as seen by Mr. Hamilton, had, three nights before, been placed upon the bed in the room specified, had died there from loss of blood, the body having been subsequently buried in the garden in order to conceal the whole of the unfortunate transaction.

* *Apparitions, a Narrative of Facts*, by the Rev. Bouchier Wrey Saville, M.A. (London, 1874)—a volume to which a general acknowledgment is due.

3. A settler in Australia engaged a convict servant, who reported to his friends that he had suddenly sailed for England. One of these, while travelling in the evening in the country, saw the absentee seated on a paling, but headless. Horrified by the sight, the witness persuaded his brother to accompany him to the spot on the succeeding evening, where the decapitated trunk was again seen in the same position. Suspicions led to the employment of a native, endued with bloodhound properties, who tracked the body of the murdered settler to an adjoining pond.*

It is somewhat curious that the sources from which these gloomy anecdotes have been extracted, the *Memoirs* of the brilliant and virtuous actor who so long contributed to the amusement of the public, and of the reverend critic and caricaturist of dreams, delusions, diablerie, &c., should have been converted by their sons into rich repertoires of the marvellous—a circumstance which corroborates the supposition that the Celts leave their Second-sight in their native glens, and that the condition upon which such presages or presentiments depends has established a congenial home in the South.

V. It is expedient to add to the definition previously attempted, that sanctioned by so high an authority as Dr. Jamieson, who says, in his "*Dictionary of the Scottish Language*," that "Second-sight is a power believed to be possessed by not a few in the Highlands and Islands of Scotland, of foreseeing future events, especially of a disastrous kind, by means of a spectral exhibition to their eyes of the persons whom these events respect, accompanied with such emblems as denote their fate,"† in order that both of these definitions may be compared with the narratives of recent events to which they seem applicable:—

(a) An inhabitant of the district of Rannoch was met, when crossing a bridge which narrowed the path, by a funeral cortège in which he saw many friends and acquaintances. He not only easily recognised by the moonlight these individuals, but when passing close to the coffin, the mortcloth, which was a plaid of a particular tartan, was blown aside or displaced, as he read on the lid the name, age, &c. of a person whom he believed to be alive, but who, on reaching his home, he learned was ill, and whose death occurred the day following. This took place within a few years.

(b) In like manner it is recounted that a young gentleman, calling at Garth Castle, addressed a nurse, who was struggling to

* *Memoir of Charles Mayne Young*, by Julian C. Young, his Son: London, 1871.—*Life of Rev. R. H. Barham, Author of Ingoldsby Legends*, by his Son: London, 1870.

† *Dictionary of the Scottish Language*, p. 573: Edinburgh, 1846.

place a pair of boots on the feet of a recusant child, in the words, "They will fit him before he will have occasion for them." Bantered by other members of the family on his new talent for prophecy, he stated that on his way thither he met, at a bridge, the funeral of a child, attended by his own father, and that of his little friend in the nursery, both of whom he knew to be at a distance, and that the procession wended its way towards the parish churchyard. The child died next day. In "Brand's Popular Antiquities" (Vol. iii. p. 159) it is mentioned that such phantom obsequies frequently show forth death in the Isle of Man, and that spectators have been convinced of their reality by bearing the bier on their shoulders, which were bruised by the weight.

(c) In 1775 one of his farmers confided to Lord Breadalbane, in great sorrow, that his son, and many others, had been seen by him lying dead on the field of battle, but was consoled by the assurance that no engagement had taken place. The news of the Battle of Bunker's Hill, however, proved to his lordship that the prevision of the farmer had been faithful, and that the son was killed at the time and in the manner described.*

(d) Of a family, consisting of the parents and two daughters, the father was in England, the mother and one daughter in a city at a distance, while the second remained at home. The latter, while entertaining a party of friends, cried "Oh, my mother!" fainted, and on recovering divulged that the cause of her indisposition was the semblance of her mother passing through the room. The day and hour corresponded with the death of the lady. The informant of my authority is still alive, and confident as to the accuracy of her statement.

(e) The same correspondent describes a scene in North Uist, communicated to him by a reliable friend, where a seer, with a reputation for perfect veracity, summons his neighbours to witness a wreck of a vessel, then amongst the breakers on the shore, which he minutely described. Those thus called saw nothing, but a few nights subsequently they witnessed the actual destruction of a ship and her crew, similar to what the seer had delineated, and in the spot indicated by him.

(f) A clergyman of the Established Church of Scotland, in Invernessshire, writes: "In March, 1847, a woman, whom I believed to have the gift, and who seemed to be at the time in a walking trance, told me, and four or five other persons, that she saw a vessel being wrecked, and a man in the act of drowning. She described the man, his age, appearance, &c.; and

* *Sketches of the Character, Manners, and Present State of the Highlanders of Scotland*, by Colonel Stuart of Garth, vol. ii. p. xxxii. (1822).

three days after a vessel *was* wrecked, just as she described it, and a man drowned of the age, size, and appearance, exactly as in her vision. The only difference was that she said it was midnight, whereas it was as exactly as possible noonday of a day in the second week of March.

(g) Mr. D. M'Rae, North Uist, writes to my friend, that a joiner being engaged in making a coffin, his father's servant-girl entered his workshop, and in a frivolous way stated that that coffin was too small for her. The man immediately fainted, and on his recovering, reluctantly told that he saw the servant's dead body placed in the coffin. This girl died suddenly within a short period.

(h) The same seer predicted from vision that two sailors would enter a certain house bearing the dead body of a third, who had been drowned upon the coast, and this was realised.*

(i) An intelligent schoolmaster, engaged in Lanarkshire, though of Highland origin, and so fervent a disbeliever in apparitions as to have assailed a phantom of Hugh Miller, which accompanied him for miles on a journey, with a cudgel, writes: "I had a little sister lying hopelessly ill of scarlatina, and had been despatched to a friend's house, about half a mile off, for some slices of bacon to apply to her throat, which was swelling rapidly. As I returned I quitted the highroad, and ran through a field bordered by an open ditch and a gnarled hedge, set with stunted alder-trees. On casting my eyes across the ditch and hedge, I saw the little child gliding parallel to me. I stood—she stood, calmly looking across; there was no mistake; she presented the exact appearance she had when I left the house. I became terrified, and ran in desperation. I found, on reaching home, that she was sinking rapidly, and she expired in about an hour."

(j) Dr. Aitken, of Inverness, gives, as a veritable tradition, that F—— of G—— saw in a dream or fainting-fit, three times, a man drowned in the locks of the canal at Dochgarroch, and thrice, as he looked down in the lock, he discovered that the face of the drowned man was his own. He was drowned in the very lock, and was found in the very position in which he saw himself in his dream, and which he had described to some of his relations.

(k) A physician, settled near Loch Carron, describes his conversation with various seers, and ventures on the theory that they often belong to families in which insanity has appeared—that they have something "queer about the eyes;" and affirms that they generally vomit after a vision, in consequence of the revolting objects seen.

* See, likewise, Ferrier's *Theory of Apparitions*, *passim*, *Demonologia*, p. 201.

(*l*) In 1760 two ladies, one of whom is blind, were seated in an apartment in the ancient mansion-house of Hal,—in Kirkcudbrightshire, awaiting the return of the proprietor. Though late at night, the Laird of M—— walked into the room, booted and spurred, and asks for their father. He was conducted to the library. On the return of the proprietor, the library is found to be empty; but forthwith there arrived from M——, a messenger, craving the presence of the proprietor, who, on reaching the residence of his friend, found that he had died suddenly, at the time of his apparent visit to Hal,—crying earnestly for its owner while in the agonies of death. This was related to me by the grandson of the lady who received and conversed with the apparition.

The following may be added as a suitable appendix:—

“Sir Walter Scott declared to Mrs. Hughes, and that many years before the event took place, he had heard of a prophecy in the Seaforth family, uttered, or said to have been uttered, by a second-sighted clansman more than a century before, to the effect that, ‘When the Chisholm and the Fraser should be baith deaf, and the McPherson (McKenzie) born with a buck-tooth, the male line of the Fraser should become extinct, and that a white-hooded lassie should come from ayont the sea and inherit a’.’ All these contingencies happened in the late Lord Seaforth’s time, who, on reverting to the prophecy, showed two fine lads, his sons, to Sir Walter, and observed: ‘After all’s said and done, I think these boys will ding the prophet, after all.’ He was wrong, however. The two boys died immediately before their father, and the present Lady Hood (a widow) came from India after his decease, and inherited the property. The prophecy is said to have included yet another family misfortune, and to have foretold that the ‘white-hooded lassie’ (the widow’s cap is clearly alluded to in the epithet) should cause the death of her own sister. This also came to pass. By the upsetting of a pony-carriage which Mrs. Stuart Mackenzie (as Lady Hood had become by marriage) was driving, her sister was killed on the spot, and she herself so fearfully injured about the face as to be compelled to wear, for the remainder of her life, a head-dress of a fashion which enabled her to conceal the greater part of her countenance under bands of black velvet.”*

The histories in both of these series have been selected from a large collection possessing similar import and interest. They have been studiously divested of every fact, and every phrase, which could have been dictated by or have appealed to the imagination; every collateral circumstance which did not

* *Darham*, p. 153, *ut supra*.

bear upon the essential characteristics has been excised; but, after this privative treatment, there remained the residua of a vision and a portent. The former has never before existed in consciousness; the latter possesses properties and meanings interpreted only by subsequent events. The former depends, generally, upon the evidence of one or more persons; the verification is substantiated by many. The second series are given as orthodox cases of Deuteroscopia, on the testimony of persons, many of whom are still alive, creditable and not credulous. But there are exceptions or modifications in the operation of this power, as where the seer beholds his duplicate self. Such seems to be the invariable form of the augury in St. Kilda, though many instances have been known elsewhere. The shadow-figure corresponds with the original in shape, size, garb, moves at a certain distance as he moves, simulates every movement, and, should he vary any article of apparel, whether a straw rope round the leg or a plaid, presents its counterpart. "Thirty of the inhabitants," records Martin, "being on the Island of Soa, espied the body of a man with a grey coat and plaid floating on the sea on his belly, with a sea-mew pecking at his neck, which, after being seen for a quarter of an hour, disappeared. Shortly after one of the spectators was drowned in the sea, and his death resembled in all things the foregoing vision, even to the presence of the sea-mew."* The connection of two natures of a double self, this replica of personal identity, is supposed to have analogues in various states, normal or abnormal, delineated by philosophers, physicians, and poets. Such are the phenomena of the Transmigration of Souls—as the change of a man into a wolf, or a wolf into a man † —of double or alternate consciousness, of antagonistic volitions; of the dual cerebral action advocated by Dr. Wigan, of the contradictions in human character, as where profligacy is combined with piety, science with superstition, as in Swedenborg, suggesting the coexistence of two personalities. Even a grave and reverend author, carrying such speculations beyond the confines of secular experience, has advocated, in support of the doctrine of Immortality, that there is a spiritual as well as a flesh-and-blood body; that these are generally conjoined, but may be separated during our physical life; and has written ingeniously, both in prose and verse, in support of this dogma, for into such a rank he would fain elevate his thesis.‡ Even savages are conjectured to cherish similar notions, and the Chinoos§ are said to conceal their names, in case their

* *Miscellanea Scotica: Martin's Narrative of a Visit to St. Kilda*, vol. ii. p. 66.

† *Traditions, Superstitions, and Folk-Lore*, by Charles Hardwick (1872) p. 232.

‡ *Light Leading unto Light*, by J. C. Earle, B.A.: London, 1875.

§ *Bancroft*, vol. i. p. 245.

confidant should thus obtain power to communicate with their spiritual twin; and Herbert Spencer conceives that men so situate could not arrive at any other conclusion, after seeing their own shadow, their likeness, or any external scratching suggestive of a human simulacrum. Confirmation has even been sought, from such speculations, of the spiritual portraits or doubles supposed to be caught by photographers of aerial essences carried within range of our senses by the actinic rays in the atmosphere.

A beautiful glimpse of the influence of this belief is afforded by Sir Walter Scott in the wild episode of the Children of the Mist, in his "Legend of Montrose," where the gloomy Allan McAnlay is haunted by a spectre assassin plunging a dirk in the bosom of his rival. He never can trace the features of this double, for such he knows it to be by noting that when he reversed his plaid so did the apparition. This may be accepted as a mocking picture of his own dark designs, but the evil did not fall upon the intended victim, but upon the designer.

To turn from romance to biography. Aubrey relates, in his "Miscellany," that "the beautiful Lady Diana Rich, daughter to the Earl of Holland, as she was walking in her father's garden at Kensington, to take the fresh air before dinner, about eleven o'clock A.M., being then very well, met with her own apparition, habit and everything, as in a looking-glass. About a month after she died of the smallpox. It is said that her sister, the Lady Isabella Thynne, saw the apparition of herself also before she died."*

This seems an appropriate stage for the introduction of the various causes assigned for this faculty, and what it reveals:

(i.) An actual apparition, seen or heard through ordinary channels, portending death, or some future event, in which the seer is but remotely interested.

(ii.) A mere delusion or deception (this is the view of Ferrier), having no connection with past, present, or future, resulting from the ignorance, superstition, abstinence, or unhealth of seer.

(iii.) A vision in consciousness of seer, resulting from his religious creed or credulity, the reproduction of external impressions, but influencing subjectively the faith and feelings—such as the prefigurations of St. Augustine.

These observations would be incomplete did they not embody a reference to the visits and visitations of St. Teresa and St. Catherine of Siena, and of other saints and celebrities of the mediæval Church. Of the reality of such appearances there cannot be a doubt. They were as real in the mind of the seer as any recollection of friends or familiars—as any picture

* *Bourchier, op. cit.*

of the past or foreshadowing of the future. But these reflections, or restorations of external impressions on the mirror of consciousness, differed in several respects from the phenomena treated of here. The imagination to which such forms became present and palpable had been prepared by penance and prayer, rapture or ecstacy and expectation, for their reception. They followed or emanated from acts of desire and emotion, if not of volition. They were copies, images of the paintings and statues of Deity and Divine personages, and of holy and heavenly scenes, which glowed from the walls and the altars by which the enthusiast, perhaps the ecstatic, was surrounded. They were not necessarily prophetic; they were personal, and did not involve the death, or fate, or fortunes of other and indifferent persons. They were supersensuous, and although embracing death, judgment, and eternity, did not condescend to the trivial, transient, and commonplace events of vulgar and ordinary life.

(iv.) Dr. Abercrombie attributes such experiences to the reminiscences of a forgotten dream.

(v.) Professor Laycock refers such conditions to exaltation of the sensibility—Morel to abolition of the sensibility, but both hold them to be signs of disease.*

(vi.) Another solution is found in an actual impression on the retina, coming from within, through the reproduction of former impressions from without, but actually seen by seers—in other words, a picture interiorly impressed upon consciousness is recalled by memory, and repainted or impressed anew upon the retina. This hypothesis is supposed to explain the experience of certain seers, who have believed that they saw and recognised the real and familiar objects in the surrounding scene, through the funeral procession, or whatever phantasmatia might be present, these known and substantial objects forming the distance or background of the whole picture. Two impressions were thus conceived to cross or pass each other, or to mingle together at some point in the eye, and at some stage in the process of vision. This is Sir David Brewster's theory, but (a) even he was struck by the difficulty in conceiving that two impressions, from within and from without, could coexist, or that the same nervous fibre could at the same time convey images to and from the brain; (b) he ignored the sad truth that in 30,000 blind people in Great Britain, in whom the retina has been destroyed by glaucoma, &c., many continue to see visions or pictures of the external world; and (c) he omits to explain in what manner memory could conjure up faces, figures, objects never seen before, or assuredly not seen in the same circumstances and concatenations.

* Laycock's *Nervous Diseases of Women*, p. 339.—Morel's *Études Cliniques*, vol. ii. p. 178.

(vii.) That it is a result of a peculiar power or property, possessed by a certain number of individuals, in virtue either of their mental constitution, or of the adaptation of the mechanism of vision, or of both, by which impressions treasured in memory can be projected upon walls or surrounding objects, as formerly distinguished, forming perfect pictures, and seen distinctly in this locality, even in darkness, by the external eye. Ruskin attests the exquisite fidelity with which a painter of Cologne transferred from mental images to canvass a large altarpiece, which had been taken away by the French Army. But there is more in such a process than mere acts of recollection. These productions were creations or new combinations of impressions previously received. Goethe is quoted as stating, in his tract, "*Zur Morphologie und Wissenschaft*," "When I closed my eyes and depressed my head, I could cause the images of a flower to appear in the middle of the field of vision; this flower did not for a moment retain its first form, but unfolded itself, and developed from its interior new flowers, formed of coloured or sometimes green leaves. These were not natural flowers, but of fantastic forms, although symmetrical as the rosettes of sculptors. I was unable to fix any one form." * Others have possessed this ideal painting power.

(viii.) It may be the result of a partially-developed sixth sense, such as is supposed to guide migratory uncivilised races, birds, certain animals (dogs, cats) in reaching home by routes which they have never previously followed, or by the exaltation of certain instincts already known to exist in other animals (such as ants, bees), or by the compensatory strength and scope displayed by the unimpaired senses in the blind, deaf, &c.

Lastly, that Second-sight is the creation, the innate outcome, of a certain feeling or faculty implanted, though in different degrees, in all men, resembling the elevation or discoveries in imagination, giving the belief in the supernatural, giving the perception of certain objects, conditions, and relations among the surroundings of human beings, not cognisable to the external senses, and which may, or may not, require for its active operation excitement, physical or psychical, but which must be regarded as normal. Theologians as well as psychologists have admitted a sense of the marvellous and the supernatural, which transcends the ordinary operations of mind, and which is not less reducible to the elements furnished by sensible impressions, than veneration, pride, pity, and which transcends, but is congeneric with, the supersensuous states; where the telescopic or microscopic range of vision is vastly increased, as naturally, or in somnambulism; where exaltation of memory takes place

* Müller's *Physiology of the Senses*, translated by W. Bailey (London, 1848), p. 1395.

during sleep ; where sensibility, even pain, are abolished, or suspended by the will, or during fear or ecstasy ; where there is a transference of the ego to a second person whose passions and fate have been temporarily assumed and represented, as in the celebrated Mrs. Siddons and others.

It might constitute a ground for truce or suspension of hostilities in the death-struggle at present maintained between certain controversialists, were it admitted as possible that the evolution or development now conceived to be going on in the human frame and functions might ultimately attain such a degree of elevation as to place consciousness within the reach of other unknown or partially-known qualities than those of matter, that we might grow up to what all men have believed in, but what only a privileged few had felt to be demonstrated. These considerations apply only to what may be designated the first stage of Second-sight, the perception of a vision ; but, were this placed beyond doubt, the second stage, or prevision, might be conceded as possible, under laws involved in the first of which we are as yet as ignorant as of the origin and nature of our intuitions.

ART. III.—ON THE PATHOLOGY AND TREATMENT OF CEREBRAL DISEASE.

No. II.

By ROBERT HUNTER SEMPLE, M.D.

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IN discussing the pathology and therapeutics of cerebral disease, these subjects may be treated in two distinct modes—one of which is best adapted to the student of medicine, and the other is more suitable for the contemplation of the practitioner. The former mode would be founded upon the basis of classification, which in all cases must be artificial, but would aim at presenting to the view a series of mental pictures, displaying certain types or forms of disease, and such canons of treatment as might dwell in the memory, and constitute starting-points for subsequent illustration and investigation. The latter mode would be based on clinical experience, which, although often failing to corroborate the dicta of nosologists, and even, in many instances, directly contradicting them, is no less useful in teaching the necessity of examining carefully every case as it arises, and of disembarassing the mind, if need be, of any preconceived ideas derived from the authority of books, however well written, and of teachers however eminent.

Thus, it is only necessary to examine the records of Medicine for a few years in order to become convinced of the fallacy of almost all attempts to establish unerring principles of nosological arrangement, or to institute dogmatic principles of treatment. Much of the change observable in these respects is no doubt due to the influence of what may be called "fashion" in medicine; but much more is unquestionably attributable to the increased spread of knowledge, to the improved methods of medical teaching, to the closer attention paid to anatomical investigation, to a better appreciation of physiological laws, and to more extended opportunities of medical research offered by the invention of the precise instruments in which our age has lately been so prolific. To pass over the stethoscope, the laryngoscope, the sphygmograph, as being unconnected with the present subject, the introduction of the ophthalmoscope has literally thrown a vivid ray of light into one of the darkest chambers of cerebral pathology, and has enabled the surgeon and the physician to infer, from the condition of the retinal vessels, the existence of structural changes in the cerebral arteries calculated eventually to lead to the host of diseases

which, under the names of apoplexy, ramollissement, epilepsy, coma, &c., may threaten the integrity of the vital and intellectual functions, or cut the thread of life asunder in a moment. In reference, too, to therapeutical appliances, a complete revolution has been wrought in the treatment of cerebral diseases—partly by the guidance of the scientific principles and instruments just referred to, partly by the sceptical tendencies of the present age (using the word sceptical in the etymological sense),* and partly even, we must confess, by the lessons afforded by some forms of quackery, which have shown that many cerebral and other diseases may be improved, or at all events not rendered worse, by leaving them, unassisted, to the *vis medicatrix naturæ*.

It must at once be admitted that the pathology of cerebral disease is still involved in great obscurity in many respects, although modern physiological research and clinical experience have done much to remove some of the difficulties of the subject. It is almost a trite remark, that some of the most serious diseases of the brain may exist and reach a fatal termination without giving any appreciable notes of warning during the life of the patient; and, on the other hand, that derangements of certain parts of the cerebral mass, though apparently slight, may give rise to the most serious and alarming symptoms. One of the most recent instances of the existence of serious organic disease of the brain, unaccompanied by any pathognomonic symptoms during life, was afforded in the post-mortem examination of a distinguished member of our own Profession, who died last September, apparently from the results of an operation for lithotomy, but in whom there was found a large tumour pressing upon the cerebral mass, and which is thus described in the careful notes made of the appearances:

“On raising the calvarium, a soft tumour was discovered, situated on the right side of the head, about an inch above the ear, between the dura mater and the bone. It was about the size of a hen’s egg, and projected towards the brain, so as to produce a deep pit or hollow into which it fitted. The convolutions were flattened and pressed down, but not otherwise altered—no softening, no congestion. The dura mater covering the tumour was somewhat thickened. The tumour had a cystoid character, with a distinct investing membrane, and its contents consisted of a blackish pulpy material resembling the interior of a recent aneurism, or more closely of a myeloid tumour. Under the microscope there were seen cells of various descriptions, plates of cholesterine, fatty granules, and altered blood-corpuscles.”

* The Greek word σκέπτομαι, it is almost unnecessary to state, means “to contemplate,” “to consider attentively,” “to meditate upon.”

The name of the physician in question I do not mention, but the case will be well remembered by the medical world, and it is almost unnecessary to remark that no symptoms of cerebral disease had ever manifested themselves during life. Yet there can be little doubt that the existence of this cerebral tumour was the immediate cause of death, and, had not the brain been examined, the whole case would have been involved in utter obscurity, for the surgical operation was quite successful, and the patient was little past the prime of life. In this case it will be urged, and no doubt with truth, that the growth of the tumour was gradual, and that the cerebral mass thus became accustomed to the slowly increasing pressure, until a point was reached when tolerance could no longer exist, or when some collateral circumstance (in the present instance, perhaps, the shock of the surgical operation) overthrew the feeble balance which had so long kept life and death in a tottering and uncertain equilibrium.

There can be no doubt that when we discard the mere dry details of the descriptive anatomy of the brain, and regard the organ rather in its physiological relations with the spinal cord and the origins of the nerves, a considerable insight will be gained during life as to the seat of mischief, if any exist. In making this remark, I omit, for the present, the consideration of those cases where the whole of the cerebral mass or of its peripheral portion is involved, and where any diagnostic or differential decision as to the exact seat of the lesion is impracticable or unnecessary. But I refer particularly to those cases where the seat of disease is indicated by the objective manifestations offered by the nervous cords which form the media of communication between the central cerebral mass and the external world. Viewed in the light of modern science, the spinal cord is really the fundamental and essential structure to which all the other parts of the nervous system are subsidiary or subordinate, and it is well known that, although even a human being may be born without a brain, it is impossible for existence to be continued without a spinal cord. Anencephalous monsters, by means of the reflex action of the cord, are enabled to draw their supply of milk from the mother's breast, the brain being wholly unnecessary in this function. Instead, therefore, of the spinal cord being a mere appendage to the brain, as was once supposed, the fact is just the reverse, and the brain is an offshoot or development of the spinal cord. Into the relation existing between the assemblage of moral and intellectual faculties constituting the MIND, and the mass of matter composing the brain, I do not

at present enter, as my object is to show the pathological connection existing between diseased structure and impaired functions of certain parts of the intra-cranial organs. In this very interesting but most difficult investigation, Dr. Hughlings Jackson has displayed conspicuous ability, rare sagacity, and unwearied diligence, and the results he has obtained, though necessarily imperfect, have revealed some of the most mysterious operations of the nervous system. I do not, however, refer in detail to his researches, because I wish, as far as possible, to illustrate my remarks by cases which have fallen under my own observation.

It may be stated, generally, that the exact seat of cerebral disease is indicated, more or less clearly, according to its greater or less connection with those nervous fibres which control or direct the communications between the inner and the outer world, or, in other words, between the cerebral mass and those external objects with which the animal fabric is placed in relation. The anatomist will readily recall to mind the direction taken by the nervous fibres as he traces them, upwards and outwards, from the so-called medulla oblongata, through the Pons Varolii, then through the ganglia called the optic thalami and the corpora striata, till they expand into, and become merged in, the general mass of the hemispheres. In this extensive course they necessarily fall upon the track of many of the nerves which proceed outwards to various parts of the body, endowing those parts respectively with sensation, or motion, or special sense, as the case may be. Thus, speaking generally, the posterior columns of the cords, passing through the medulla oblongata and the other structures just mentioned, are connected with the sensitive branches of what is called the fifth pair of nerves; while the anterior columns, pursuing a similar course, are connected with the motor branches of the fifth pair, and also with the third pair, the fourth pair, and the sixth pair, and what is called the portio dura of the seventh pair, and the ninth pair, all of which are exclusively endowed with motor powers. By pursuing the investigation in a reverse direction, and tracing the nervous fibres of the brain downwards and backwards, these threads are found successively passing through the corpora striata, the thalami optici, the Pons Varolii, and then crossing or decussating in the medulla oblongata, so that the fibres from the right side of the brain pass for the most part to the left side of the cord, and *vice versa*. The explanation is thus readily afforded of the fact that paralysis on one side of the body almost always denotes some disease of the opposite side of the brain; and it is equally easy to understand that when the *central* part of the motor or sensitive tract is

affected, the paralysis will be on *both* sides. I do not propose to give any illustrations of these well-known principles, which are verified by daily observation.

It is not equally well known that when the seat of disease is in that part of the brain which is not immediately in the track of the motor or sensory nerves, there may be no paralysis at all, although the lesion may be very serious and extensive. It must be borne in mind that the great bulk of the *hemispheres* of the brain are, so to say, expansions or outgrowths from the divergent fibres of the spinal cord, and are, as it were, *outside* the motor and sensory tracts, or are only blended with them in a loose and general connection. The following curious case is a remarkable illustration of the observations just offered :

CASE.—Some little time ago I was requested to see a gentleman who was suffering from several anomalous symptoms, but all pointing to some serious cerebral disease. He was about sixty years of age, and somewhat plethoric. I learned from his sister that he had been ill for about a year and a half, and that he had been obliged to give up his business, owing to obscure cerebral symptoms, which were attributed to “softening of the brain,” and for which he was recommended to travel about various parts of this country and on the Continent. I was told that his intellect was somewhat impaired and his memory was imperfect, and that he was unable to manage his affairs satisfactorily. I first saw him in London on a Monday, he having landed from Boulogne on the previous Saturday. I was informed that he walked to the steamer at Boulogne, but was helped out of it at Folkestone, and arrived at his residence in London the same evening, and walked from the cab into the house. He soon complained of feeling ill, and accordingly went to bed, where he remained. It was noticed that he was very sleepy and snored much, and he also vomited.

When I saw him first, he complained of sickness and vomiting, and great pain in the head. He was rational, and answered questions satisfactorily enough. The eyes seemed rather intolerant of light, and the pupils were contracted, remaining so during all the rest of life. The bowels were confined. I continued to attend him till his death, which occurred about three weeks after I first saw him. The treatment consisted in the application of blisters to the nape of the neck, although he tore them off; in the administration of purgative medicines, which partially succeeded in their object; and in the cautious regulation of his diet. *I carefully examined him from day to day as to the existence of paralysis in any of the limbs, but I could detect none.* I caused him to lift both his arms, and to place them in various positions, and also to move both his legs, but he showed

no indication of loss of power, and when I pinched the limbs I elicited the expression of pain. His mental condition was rather peculiar, for although, as has just been mentioned, he answered questions rationally enough, he adopted, in conversation, a jocular tone which was unsuitable both to his acquaintance with me (for I knew nothing of him before) and to the serious illness under which he was labouring. He was always very somnolent, but he could be roused without much difficulty. The urine was passed involuntarily. It is unnecessary to record the progress of the case further than to state that the symptoms gradually became worse, the prognosis unfavourable, and he finally became comatose and died.

The post-mortem examination was made twenty-four hours after death, the time being winter, and the weather very cold. The head only was examined, owing to the objections offered by the relations, but the appearances observed were very interesting. The skull was thickened, and there were strong adhesions existing between it and the dura mater. There were patches of old lymph on the surface of the brain at the vertex. The arteries at the base were atheromatous, but no plug was found in any of them, although they were carefully examined. The consistence of the brain generally was normal, and no softening existed in any part. But on the right side of the brain, on the posterior lobe, and very near the surface, there was a large cavity of about the size of a hen's egg, filled with a clot of blood, and opening on the surface of the hemisphere. This cavity and the contained clot presented the characteristic appearances of such a lesion gradually in progress of cure, for a membrane was in process of formation on the circumference of the cavity, and the clot was beginning to lose its dark sanguineous colour, and to assume a yellowish tint. The effusion of blood was probably to be dated from the period of the sea-passage from Boulogne to Folkestone, and from this time more than three weeks elapsed until the death, during which interval it would seem that nature was endeavouring to effect a cure by the usual process of absorbing the clot, forming a membrane to the cavity, and restoring the rest of the brain to its normal state. In the present instance, however, the age of the patient, the long duration of the disease, and the large size of the effused mass, all combined to render a favourable issue of the case all but hopeless.

Here, then, was a case where an extensive effusion of blood existed in the right posterior lobe of the brain, but in which during life there was no paralysis, the reason obviously being that the seat of the effusion was out of the track of the ordinary motor and sensory nerves. The more common seat of

apoplectic effusions is in one of the lateral ventricles affecting the corpora striata or the thalami optici, which are both of them continuations of the motor and sensory fibres proceeding upwards from the columns of the spinal cord. In the present instance, too, it must be observed that the primary lesion appears to have been a chronic inflammation of the membranes of the brain, together with an atheromatous condition of the arteries, and the immediate cause of death must be referred to the rupture of some minute branch near the periphery of the organ. Besides the mental condition, the persistent contraction of the pupils is a remarkable circumstance, and it indicates, I believe, the existence of some irritation on the *surface* or *periphery* of the brain, while the continuous dilatation of the pupil is a pretty unerring test of effusion of fluid into the ventricles or between the membranes. In ordinary apoplexy, and in some other dangerous conditions of the brain resembling that disease, it is very common to find one pupil contracted, and the other dilated.

In contrast to the above case, I shall now adduce another, in which the brain was proved to be the only organ diseased, but the disease was of a very serious and complicated character :

CASE.—M. T., aged 54, a person of dissolute character, was seized at the beginning of July, some years since, with a paralytic attack, for which he was bled to the extent of thirty ounces, but not by myself. After this treatment and the administration of purgatives he partially recovered, but his intellect became almost obliterated; he passed his urine unconsciously, and became offensive to the persons in the same ward, and was therefore placed in one by himself. From July until the end of May of the succeeding year he remained bed-ridden, but at the latter period he was again seized with an attack resembling apoplexy; the pulse was 180, full and strong, and there was stertorous breathing. There was also paralysis of the left side. He was bled to sixteen ounces, and during the bleeding the stertorous breathing ceased, and did not subsequently return. He remained, however, insensible; the pupils were fixed in a state between contraction and dilatation; the pulse fell to 160, and was rather feeble; the bowels were confined, and the urine continued to pass involuntarily. He died some days afterwards, and the following post-mortem appearances were observed:—

On opening the head, I found the vessels of the dura mater turgid with blood. The arachnoid membrane was slightly thickened and opaque; a large quantity of serous fluid, tinged with blood, was found beneath it, and flowed copiously, both from beneath the membranes of the brain, and from

the theca vertebralis. A large quantity of fluid was also found in the lateral ventricles and in the third ventricle. The vessels of the brain itself were not congested, and the general structure of the organ, except in the parts about to be described, presented a tolerably healthy appearance. At the posterior part of the corpus callosum, immediately above the tubercula quadrigemina, there was a considerable amount of softening, the cerebral substance in that situation being of the consistence of thick cream, but of a white colour. In the anterior part of the right corpus striatum there was a cavity of about the size of a hazelnut, lined with a smooth membrane. On the left corpus striatum there was a large but not deep excavation, of about the size of a halfcrown, presenting a ragged appearance, and of a dark-brown colour. The texture of this ulcerated portion was much softer than that of the surrounding tissue, from which it was not separated by any distinct line of demarcation. The viscera of the thorax and abdomen were carefully examined, but I could find no marks of disease, and the kidneys especially were particularly healthy.

This, therefore, was a case of chronic disease, confined altogether to the brain, and producing palsy, mental imbecility, involuntary discharge of urine, apoplectic seizures, and eventually death. There were no symptoms during life specially indicative of softening. The first attack of paralysis was clearly connected with an effusion of blood into the right corpus striatum, and the apoplectic cell was the result of that event. After this first attack it would appear that a hyperæmic condition of the cerebral vessels continued to exist, and at last the structure of the organ broke down; and congestion of the membranes, with copious effusions of fluid into the arachnoid sac and into the ventricles, and central softening of the brain-structure, were together the immediate causes of death.

With respect to the important but very difficult question of treatment in cases such as those just referred to, I have some observations to offer, but I am far from having any dogmatic views on the subject. Opinions must now be formed and expressed with the more reserve, because the progress of modern pathology has proved the existence of so many hitherto unsuspected circumstances leading to softening, extravasation of blood, neoplastic formations, and other serious diseases in the intracranial mass, that the relief or removal of such conditions must be a most serious problem. It is evident that in the case last recorded treatment could have been of no avail; in the preceding case it must have been equally unsuccessful; whereas in the first case referred to (that of the deceased physician), the cerebral malady was not even suspected during life.

However, as Celsus observes, "*proposito metu, spes tamen superest*," and there are many circumstances which afford gleams of hope in some of the cases of cerebral disease which are apparently of the most desperate character. For it must not be forgotten that, although the brain-substance is liable to the formidable lesions already alluded to, yet the symptoms indicating brain-disease may be present and the organ itself be perfectly healthy. For, as is now well known, in consequence of the researches of Marshall Hall, Brown-Séquard, and others, the brain may be affected only functionally and secondarily in many cases, the real seat of disease being situated elsewhere, and being, perhaps, only of a transient or curable character. If space allowed, I could adduce numerous instances where, although convulsions, spasms, or coma existed, yet the brain was perfectly unaffected in its structure, and in which, the local cause being removed, the brain-symptoms entirely disappeared. How often has it happened that apparent apoplexy has been dependent on kidney-congestion, and has vanished when such congestion has been relieved; that coma and convulsions, which have excited the most anxious fears, have ceased, as if by magic, on the expulsion of an intestinal worm; that cerebral congestion in a female has been relieved by the appearance or reappearance (as the case may be) of the menstrual discharge; that spurious hydrocephalus in a child has disappeared on the cutting of a tooth!

But even when all such cases of excentric origin are excluded, and the attention is fixed upon the presence of actual disease within the cranial cavity, it by no means follows that the malady is incurable or hopeless. Mere congestion of the brain, without extravasation, although often fatal, may be and is very often relieved by remedial, dietetic, and hygienic measures; and even when rupture of a vessel has taken place, and extravasation has ensued into the cerebral mass, nature, assisted by art, may still effect a cure. In the two cases just recorded from my own experience, it will be seen that in the second case there was an apoplectic cell, resulting from the cure of a sanguineous effusion which had occurred ten months before; and in the first case, the enormous effusion of blood in the posterior lobe of the brain was actually in process of absorption, although the patient lived only three weeks after the apoplectic attack. Hence, in a given case of apoplexy, it is reasonable to hope (unless there be some direct evidence to the contrary) that the case may be only one of congestion; and even if there be an effusion from a ruptured vessel, it may be anticipated, unless the effusion be very considerable (of which no very distinct opinion can be formed during life) that nature will absorb the effused blood, and,

though leaving a cyst, may restore the brain to its normal condition. It is quite true that the occurrence of an apoplectic attack, attended or followed by paralysis, is a most serious warning; but, nevertheless, in innumerable instances, life may be prolonged and enjoyed by means of the application of judicious remedial measures on the one hand, and by the removal of injurious influences on the other.

In former times, as is well known, and in the memory of many of the present generation, the universal rule of treatment in apoplexy was to bleed the patient, and to a large amount; and the practitioner who neglected this measure was considered guilty of malapraxis. Some years since a very distinguished member of the medical profession, long deceased, incurred almost universal censure because, on a point of etiquette (he being a physician) he had neglected to bleed a medical friend with whom he happened to be travelling, and who was suddenly seized with a fit of apoplexy of which he died. It is hardly too much to state, that had the physician in question adopted the opposite course in the present day, he would be subjected to censure just as loud and general, and the death of the patient would perhaps be attributed to the adoption of the very measure the omission of which was formerly supposed to cause the fatal result. In either case, however, the censure would be unjust. The public is too apt to attribute to human intervention, or non-intervention, a number of fatal occurrences which are really due to causes over which human art has no control, and in many cases of apoplexy the result would be unfavourable whether the patient were bled or not. In the two cases which I have recorded and contrasted in the present paper, bleeding was largely adopted in one of them, and entirely omitted in the other. In the second case it will be seen (whether *post hoc* or *propter hoc* is not very certain) that temporary relief of the urgent symptoms followed the first copious bleeding; and in the first case, where the patient was not bled at all, the symptoms gradually became worse, and the patient died.

The true rule of treatment probably lies between the two extreme views which have been entertained in the present century, and may be laid down as follows:—When the attack is quite recent, and the pulse is full, hard, and strong, the breathing stertorous, and the patient plethoric, the abstraction of blood is admissible, and in all probability will be beneficial. If, on the contrary, the patient be weak and anæmic, the pulse feeble, and there be a tendency to syncope, blood-letting will only accelerate the fatal result. Even in cases where the pulse appears to admit of bleeding, the effusion may be so extensive that all chance of recovery is lost; but it must be

remembered that the amount of effusion can be proved only after death, and although that event has happened it does not follow that the bleeding has therefore been injurious.

As I wish to support my views from cases derived from my own experience, I adduce the following, of which I have preserved notes. I have written out and published so many cases of post-mortem examinations occurring in my own practice, that I cannot be accused of any attempt to paint my experience with a *couleur de rose*, or to pretend that bleeding or any other treatment is a *cure* for apoplexy; but still I adduce the cases as honest records of the consequences of treatment. In this sceptical age I do not even assert that the patients would not have recovered if no depletion had been practised, but I think I may confidently declare that the measure did no harm:—

CASE.—E. S., female, aged 70. I was sent for and requested immediately to visit this patient, who was said to be either dying or dead. I arrived in a few minutes, and ascertained that she had previously been in the enjoyment of her usual health, and had never suffered from any dangerous disease; but that in walking upstairs she had suddenly fallen backwards with such a noise that it was heard by the neighbours, who immediately ran to her assistance, placed her in bed, and sent for medical aid. When I saw her she was lying on her back, with her eyes half-closed; her mouth drawn to one side, and convulsively agitated; the limbs motionless; the breathing loud and stertorous; the pupils fixed in a state between dilatation and contraction, not altering their size by the admission or withdrawal of light. She appeared quite insensible, and could not answer questions, seeming not to understand their meaning; the pulse was full and strong, and the action of the carotid arteries powerful. I opened a vein in the arm, and obtained ten ounces of blood. I also ordered a drop of croton-oil to be taken immediately, and also some saline purgative. I visited her the next day, expecting to find her either dead, or at least growing worse; but to my great surprise she was much better, in full possession of her faculties, and without any symptom of palsy; her speech was clear, and she possessed the full use of all her limbs. On the day following, the patient was engaged in her usual occupations and declared herself perfectly well.

CASE.—J. L., male, aged 60, had experienced several apoplectic attacks, for the last of which he had been bled, put upon low diet, and ordered to take purgative medicines. Under this treatment, which was pursued in an infirmary, his health became materially improved, but all his requests for full allowance of meat and beer were disregarded. However,

after a continuance of this regimen for five months, he procured his discharge from the infirmary, and of course returned to his usual diet. About nine months after the attack just alluded to, he was seized with another, and I saw him very soon afterwards. There was total insensibility and immobility of the limbs; the pulse was full and strong, the pupils fixed in a state between contraction and dilatation; breathing loud and stertorous, and the intellect totally deficient. I bled him to eight ounces, and ordered a drop of croton-oil to be taken, and some saline purgatives. The next day he was much better; he had regained the use of his limbs, and his intellectual faculties had returned. He was able to move both arms, but could not use the right so well as the left. He was put upon low diet, with the occasional administration of purgative medicines, and under this treatment he regained his usual state of health.

CASE.—A. R., female, aged 66. I was requested to see this patient immediately, as she was said to be in a fit. On visiting her, I ascertained that while conversing with a friend she felt suddenly very giddy, and appeared to lose the use of her arms and hands, for she let fall a candlestick which she was holding at the time. Her condition when I saw her was as follows:—She was lying in bed; the features were not distorted, but her speech was thick and confused, and almost unintelligible; she appeared to have the use of both her hands and arms, and could move them without difficulty; when asked to grasp my hand she did so, and there was no perceptible difference in the muscular power of either hand; the pupils were contracted, and did not dilate when the light was withdrawn; action of the carotids powerful; pulse strong and full, frequently beating double; action of the heart corresponding to the pulse at the wrist, and the impulse strong. The intellect was impaired, but not lost; she seemed to understand questions, but answered them in a confused and hurried manner. She was continually moving about in the bed and pulling the bed-clothes with her hands. I bled her in a full stream to sixteen ounces, which did not cause her to faint. On the next day she appeared much better; the intellect unclouded; speech clear and distinct; pulse 96, small and irregular. The blood drawn the day before showed a disproportionately large amount of crassamentum, which had a buffy coat. She was ordered to take three grains of calomel every four hours, and saline purgatives. I watched this case from day to day, and the improvement was rapid, the cure at last being complete. A fortnight after the original attack I find in my notes, which were taken at the

time, that the patient was then enjoying her usual state of health and had no bad symptoms whatever.

This case I suspect to have been one of inflammation of the arachnoid membrane, perhaps attended with the effusion of serum or lymph; and my opinion is based on the facts that the pupils were contracted—a sign usually denoting peripheral inflammation or irritation: that the blood drawn was buffy, a circumstance generally indicative of serous inflammation: that the intellect was impaired, but not abolished: that the affection of the limbs was convulsive rather than paralytic: and finally, perhaps, that the recovery took place under the circumstances described.

In all these cases I cannot help adverting to the fact, which I think is worthy of attention, that I saw them almost immediately after the seizure in each instance, and that the bleedings were performed at the very onset of the malady. It is right to mention that these cases occurred at a time when bleeding was still regarded as indispensable in the treatment of apoplexy and apoplectiform seizures.

CASE.—A. B., aged 38, a tall, powerful, and plethoric man, weighing about seventeen stone, an innkeeper, not immoderate in his habits for a person in his business, but still eating and drinking much more than was necessary, was seized with symptoms denoting an approaching attack of apoplexy. When I saw him, he was lying on a couch, breathing heavily, and almost stertorously; he could be raised, but with difficulty, and answered questions imperfectly; the pupils were fixed between contraction and dilatation, and did not alter their dimensions under the influence of light; the head was hot; the pulse was full and strong. Although this case occurred rather recently, and after the tide of professional opinion had turned against the abstraction of blood in apoplexy, I did not hesitate—especially as I had, fortunately, a lancet in my pocket—to bleed him at once, and I took away a large quantity of blood. I do not know exactly how much he lost, as no professional assistant was with me, and the blood was drawn into a large wash-hand basin. But the effect was most striking: the patient, who was before sleepy and lethargic, began to open his eyes, and to assume a look of intelligence, and to answer questions readily. I ordered him some calomel and some saline medicine, and when I saw him the next day, he was in all respects much better, and, in short, he was entirely restored to health in a few days.

ART. IV.—ON GENERAL PARALYSIS IN COMBINATION WITH OTHER DISEASES OF THE BRAIN.

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It is a common saying, and textbooks on the subject declare it, that general paralysis of the insane is a disease *sui generis*, never grafted upon any other form of insanity; so well-known as to its vagaries by the initiated that although at one time all the signs of melancholia may be present, at another those of mania (whilst either of these conditions may precede the full development of late symptoms, and the disease be said to remain for a longer or shorter time in what are called the earlier stages), still the melancholia or mania of the general paralytic are not melancholia or mania proper, but are only the first stages of a disease which has a definite history. Hence the difficulty they find of placing general paralysis in any known system of classification, pathological or phenomenal.

That it is a distinct disease no one who has had practical experience will dispute, though in what pathological change the peculiarity consists we do not know. Being a distinct disease there must be a definite pathological area, which does not show itself until after the brain has attained a certain stage of development; but a condition of mania, melancholia, or dementia, in the ordinary way of speaking, may arise at any time of life, and I have no more difficulty in seeing how a person might suffer from the pathological condition which sets up any of these, and then have the special lesion (if there be one) which connotes "general paralysis," than I have doubt that such does occur.

I know that it is said that these antecedent states are only the primary stages of general paralysis, and that between the lines the special features of the latter may be read; but I contend that the conditions may be distinct, and that, to take an example, a person with melancholia of a typical form, deluded and suspicious, refusing food, and with suicidal tendencies, may either end in recovery, death, or fatuity, or may pass into a state of general paresis with delusions of the most exalted kind, and with the greatest difficulty in articulation. Nor is a state of general paralysis incompatible with an originally weak brain. I have never seen it certainly in *very strongly pronounced* idiocy or imbecility, but a moderate degree of the latter may be

often seen. Imbecility is, of course, a relative term, and a man, the sum total of whose faculties would not entitle him to be held compos, may still have strong development of some parts of his nervous system, parts susceptible of the special degeneration which causes general paresis. We cannot therefore confine general paralysis to a degeneration attacking intellects once complete. Nor does coarse pathology give us any reason for saying that general paralysis is a distinct disease, incompatible with the presence of the others now named, though it is said that we are soon to have some northern light thrown on this subject. Taking the coarse appearances of post-mortems, there are scores of brains where it is impossible to say, without a knowledge of the previous history, but judging only from appearances, that the patient suffered from chronic mania, melancholia, dementia, or general paralysis, and the microscopical appearances cannot as yet be said to be more decisive. There is no difficulty in seeing how, even granting that there is a special lesion in general paralysis, another affection causing mental and motor symptoms should not precede, accompany, or follow. The curious thing is that the fact is denied, and that a supreme monopolising pathological condition called general paralysis has been set up, fenced-in by boundaries which are fallacious, making a fetish of it which larger experience shows must be demolished as being useless. Arguing from analogy, we can see how vain it is to give this exclusive character to general paralysis; for it is no uncommon thing to have two or more intercurrent diseases in the lungs at the same moment, just as constitutional and physical skin diseases may co-exist.

Is not general paralysis a compound of signs produced by physical, i.e. mechanical and chemical, and vital changes, and do not the extreme vascularity of the brain, its large amount of connective tissue, and the intimate relationship of its component parts almost defy such an isolation to exist as many suppose when they speak of the singularity of general paralysis? In the *Annales Medico-Psychologiques*, September 1874, Rey has described general paralysis as coexisting with locomotor ataxia, i.e. two distinct nervous affections of the cord, distinct as far as the objective symptoms go; and quite recently Dr. Clouston has described the coexistence of chorea with general paralysis. If we find a person in a melancholic condition for years in whom eventually large delusions and lesion of speech supervene, that I take to be an instance of general paralysis following on a case of true melancholia by virtue of a progressive and *perhaps* different pathological condition, and I should not consider the primary melancholic state to be in any way connected with the subsequent general paralytic condition from the point

of view generally held, viz. that the patient had simply an unusually prolonged period of the depressed state which, according to ordinary belief, frequently ushers in the well-pronounced peculiarities of the general paralytic's condition. If, again, there is a case of "mania" of the exalted form, resembling in delusions of the Grand all that is deemed most characteristic of the general paralytic, but without the hesitation of speech, and if after some years the special signs of general paralysis announce themselves and the patient dies in the condition of "paralytic dementia," that I take to be a case of general paralysis grafted upon one of ordinary mania, and I should not connect the two in any other way than as coexisting but not necessarily correlated. There are without any doubt cases which are general paralytics from the outset: we can predict a definite course with tolerable certainty. There are others where we cannot be so certain, and where the most that can be said is that "he will become a general paralytic," as often is said; but those who make this statement have, I think, the idea present to them that they are talking of the disease as a unit, and if they were asked whether or not the patient, who is excited or depressed as the case may be, was in the ordinary condition of one whom they would call "maniacal" or "melancholic," would say "no," failing to recognise that there may be an exalted or depressed state which may pass through as such to the end, or which may later on take up the special symptoms of general paralysis. It is important to recognise this superposition of one disease upon another, and the clinical truth that they may be distinguished as running together, at times clashing and confounding one another, at times modifying their respective symptoms in such a way that only the most accurate observation can detect the differences. General paresis has a natural history of its own as yet not thoroughly defined, and "sporting" at times in a most perplexing manner. The handwriting does not declare it. I was told the other day of a person whom most would consider a classical case of melancholia: yet this man's speech is perfect, though his handwriting exactly corresponds with what is considered pathognomonic of general paresis, viz. the uncertainty in the up-strokes of the letters. To me the affection of certain muscles about the eyes has seemed the most useful line of demarcation for saying "*now* this person is in a state of general paresis." This sign, which I first described in the St. Bartholomew's Hospital Reports, I have found of the greatest service, for it is never absent, and according to my observation precedes the tremor of the mouth muscles and the slip in the articulation of words. Closely regarding a general paralytic in the earliest stages of motor

defect discovers a tremor in the levator labii superioris muscle, and a contraction of the grief-muscles: the corrugatives become supercilii and the occipito-frontalis; these latter become in fact *extraordinary muscles of articulation* and serve as a *point d'appui* for the formation of words by the lips, especially words containing explosive consonants. As a consequence general paralytics often assume a melancholy air; and until I found out the rationale of the expression, I was much puzzled by the coincidence of gay delusions with a sentiment of grief expressed in the face. This is, indeed a *false* expression, and the diagnosis between it and the real sentiment of grief is that the former is transient whilst the latter is persistent. After his effort to talk the face of the general paralytic assumes a placidity, or rather vacuity, which is never seen in the ordinary most long-standing dement. In masticating food the same grief-expression, due to the same cause, may be seen.

Let me now give one or two instances in proof:—

J. A., male, aged 49 years, furniture maker, but never was very good at his business, small in stature, and of low type of cranium. Has extravagant delusions and marked hesitation of speech. Has been five years in the Asylum, exhibiting the same symptoms on admission as he does now. This is an instance of general paralysis occurring in a man with congenital or acquired imbecility, his frontal and occipital excess being very small, and the measurement of his palate indicating an approach to the idiotic type. He performs a certain amount of manual work, and seems likely to continue some time in his present state.

Case of J. P., aged 55 years. Admitted in December 1871, with large delusions and extravagant conduct, saying that he was the Prince of Wales, Archbishop of Canterbury, &c. Head well developed, and he has evidently been a man of considerable mental power. Some doubt existed for a long time as to his classification in the pathological series, and no motor lesion supervening he was put down as a case of chronic mania with large delusions. So he continued from December 1871 to June 1875, employing himself quietly. At that time I noticed a slight elevation of the eyebrows in talking, and his speech is now distinctly affected, and no one would hesitate to call him a general paralytic. I prefer to call this case one of general paralysis supervening on mania of the amœnic form—rather one of primary general paralysis in which the precursory stage of mental exaltation has preceded for an unusual length of time the motor affection; he has, in fact, been a general paralytic only since June 1875, when the combination of mental and motor symptoms was noticed, and I should be pre-

pared to find in his brain the appearances of an ordinary case of chronic insanity, with or without those which have been said to be peculiar to general paresis. Now that the combination of mental and motor signs exists it is possible to speak with tolerable accuracy as to the probable duration of this man's life; but I should be inclined to give him a much longer span in the view that his paretic condition began twelve months since than I should on the hypothesis that general paresis is never "grafted" on to another form of insanity, but that he has been really in the "paralysed" condition for many years, and that his first stage has been slow. I should add that his eyes were examined by Professor Liebreich, who found them in all respects normal before the motor signs appeared. This may not be much of a guide to show that he was not suffering from general paralysis, for the fact of the fundus of the eye being at all at any time affected in general paralysis is disputed; still it may be taken for what it is worth. In the case of J. A., above quoted, no affection of the fundus of the eye ever did or does exist. He was also examined by Liebreich.

W. B., male, aged 41 years. Depressed, and has attempted suicide, refused food, and had to be fed forcibly; in fact, exhibited all the features of a typical case of melancholia. In January last he had a maniacal attack lasting three days, giving vent to large delusions, and then I noticed for the first time the twitching about the eyebrows and slight affection of the speech. Even now it is possible to discriminate two conditions in this man; one being that of ordinary melancholia, the other of general paresis, the signs varying in intensity from day to day. From what I can find out of the previous history, this man has been suicidal and melancholy a long time; and though he is now undoubtedly "paralysed," there is, I think, but a casual connection between the two states.

The last case to which I will refer is J. K., aged 52 years, a ballast man. This man was first admitted as an imbecile in March 1873, and of his imbecility there could be no doubt. He could neither read nor write, was of very low cranial type, and quite incapable of any but the merest routine work. At the request of some of his friends he was discharged, but was re-admitted in May 1874, after a twelvemonth's absence, when his speech was markedly hesitating. Soon afterwards large delusions supervened, and he is now in the full swing of general paresis. I mention this case chiefly to show that on an originally defective structure a disease may be engrafted which is generally supposed to select more intellectually advanced subjects as its victims.

However desirable it is theoretically to adopt a pathological

classification, practically we cannot as yet get rid of "mania" and "melancholia." General paralysis I should reserve as a term for the combination of certain mental *and* motor symptoms, and I think that in a true case this combination will always be found; whilst we shall gain much by recognising that conditions of general or particular excitement or depression may precede or coexist.

Especially shall we gain with reference to prognosis. A person who long remains in the exalted or depressed state without the motor affection has a much better life than the general paralytic; but the advent of speech-hesitation gives a prophetic insight into the probability of the duration of life which was before impossible. I have simply recorded the results of clinical observation, without attempting an explanation of the facts. Why do delusions of the grand kind, in all respects similar to those of a "general paralytic," go on for years without much impairing the condition of the patient; whilst their associations with motor lesions of muscles not very necessary to the maintenance of the vital processes connote a speedy death? There must surely be two different processes at work. At all events, precision in diagnosis and prognosis will be gained by admitting that we may have in the same subject at the same moment the insanity of general delusional mania or melancholia and that of general paralysis.

ART. V.—REMARKS ON THE LUNACY ACTS (SCOTLAND),
IN SO FAR AS THEY REFER TO THE ADMISSION
OF PATIENTS INTO, AND THEIR DISCHARGE FROM,
LUNATIC ASYLUMS.

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Read before Meeting of Scottish Section, Psychological Association, Edinburgh,
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THE following remarks on the Scotch Lunacy Acts, so far as they refer to the admission of patients into, and their discharge from, Asylums, are not intended to impart any new information on the subject, but are made chiefly with the purpose of laying before this Association certain difficulties which have occurred to me in the administration of the Acts, and are submitted with the special view of eliciting the opinions of the other members on the points which appear to me particularly doubtful. From the nature of the subject, they will naturally have reference to two things: 1. The definition of insanity as laid down by the Scotch Law; and 2. The amount of insanity which justifies the detention of patients in Lunatic Asylums.

I. *As regards the Definition of Insanity.*—So far as I have been able to ascertain, according to the terms of Scotch Law, the insane are divisible into four classes: *a.* The furious; *b.* The fatuous; *c.* Idiots; and *d.* The facile, or persons whose minds are so imbecile, or so liable to be unduly influenced by others, as to be considered unfit to manage their own affairs. Although it would appear that these differences have been fully recognised, it can scarcely, however, be said that the definitions of them have been as clearly set down. Thus even Erskine, in his “Principles of the Law of Scotland,” gives a very unsatisfactory interpretation of these terms.

In referring to the curatory of idiots and furious persons, he thus writes: “Curators are given, not only to minors, but, in general, to everyone who, either through defect of judgment, or unfitness of disposition, is incapable of rightly managing his own affairs. Of the first sort are idiots and furious persons. Idiots, or *fatui*, are entirely deprived of the faculty of reason. The distemper of the furious person does not consist in the defect of reason, but in an overheated imagination, which obstructs the application of reason to the purposes of life;”* and in speaking of causes which grant exemption from punishment, he says: “Far less can we reckon in the number of crimes, in-

* *The Principles of the Law of Scotland*, by John Erskine of Carnock, Esq., p. 107.

voluntary actions the first cause of which is not in the agent, as those committed by an idiot or furious person; but lesser degrees of fatuity, which only darken reason, will not afford a total defence, though they may save from the *pœna ordinaria*.”*

Another circumstance which adds considerably to the difficulty of arriving at the real meaning of the term “insanity,” as used in the Scotch Law, is the fact, that in many of the Acts of Parliament referring to Lunacy in Scotland, especially those recently passed, many terms have been introduced borrowed from the English Law, which, with the exception of the class idiots, are quite different from those found in the Common Law of Scotland, and which naturally have no clear definition as interpreted by that law. The insane, according to the English Law, consist of idiots, lunatics, and persons of unsound mind. Phillips, in his “Law of Lunatics and Persons of Unsound Mind,” thus refers to the English terms:

“It will appear, from the authorities cited below, that the proper sense to be attached to each of the above phrases has been fully considered and positively determined. We may therefore lay it down, that every person whose mind from his birth, by a perpetual infirmity, is so deficient as to be incapable of directing him in any matter which requires thought or judgment is, in legal phraseology, *an idiot*.

“Every person *qui gaudet lucidis intervallis*, and who sometimes is of good and sound memory, and sometimes *non compos mentis*, is in legal phraseology *a lunatic*.

“Every person who, by reason of a morbid condition of intellect, is as incapable of managing himself and his affairs as an idiot or a lunatic, not being an idiot or a lunatic, or a person of merely weak mind, is in legal phraseology *a person of unsound mind*.”

He also adds: “It must be remembered, however, that in legal phraseology a person whose moral feelings are perverted is not by reason of such perversion a person of unsound mind. Further, that if the mind is unsound on one subject, it is not sound on any subject, the mind being indivisible.”†

These terms, whatever objections may be taken to their scientific value, possess, at any rate, sufficient practical value to render them very useful guides in determining what is really the meaning of insanity, as understood by the English Law.

That the same cannot be said of the Scotch Law we have already briefly referred to, and will now further consider; for

* *The Principles of the Law of Scotland*, by John Erskine of Carnock. p. 515.

† *The Law concerning Lunatics, Idiots, and Persons of Unsound Mind*, by Charles Palmer Phillips, p. 2.

not only is it difficult to arrive at what is to be considered insanity, according to the Common Law of Scotland, but even since the passing of the Act 20 & 21 Vict. c. 71 (1857), considerable alterations in the definition of insanity would appear to have been introduced in subsequent Acts.

An admirable abstract of the Laws of Scotland referring to lunatics previous to the year 1857 will be found in the Report of the Royal Commission appointed to inquire into the state of Lunatic Asylums in Scotland, and the existing law in reference to lunatics, &c.; and from it we learn that from the earliest period the ward and custody of the property of lunatics appears to have belonged to the Prince, as *pater patriæ*, and to have been exercised through the intervention of tutors appointed by him.

By the statute of Robert I., in the beginning of the 14th century, the custody and keeping of persons of "furious mind" were devolved upon their relatives, and failing them, on the justiciar or the sheriff of the county; while any damage done by such persons, in consequence of negligent keeping, was visited upon their keepers. According to Sir Thomas Craig, a distinction was at one time recognised in this respect between "fatuous" and "furious" persons: the custody of the former having been committed to the next agnate (nearest male relative by the father's side), while that of the latter belonged to the Crown, "as having the sole power of coercing with fetters" (p. 4).

From the same source we also learn that the difference between the terms *furiosity* and *idiocy* was very early established. In referring to the appointments of Tutors at Law, it is stated that, originally, the practice was to issue one brieve, applicable both to furiosity and fatuity. The essential difference between these states of mind, however, soon suggested the expediency of separate brieves, according to the supposed mental condition of the person whose case was to be inquired into—the one called a "brieve of furiosity," and the other a "brieve of idiocy."

We have thus three of the forms established—namely, the furious, fatuous, and idiots. The fourth class of the insane, as referred to in Scotch statutes, is first, it would appear, distinctly mentioned in the Poor Law Amendment Act (8 & 9 Vict. c. 83), where, in providing for the proper care of the insane, it is enacted, "that whenever any poor person, who shall become chargeable on any parish or combination, shall be insane or fatuous, the parochial board of such parish or combination shall, within fourteen days of his being known to be insane or fatuous, provide that such person shall be lodged in an asylum or establishment legally authorised to receive lunatics;"

and in a subsequent clause “adverts to persons who, from *weakness or facility of mind*, are unfit to take charge of their own affairs, as among the persons for whose accommodation poorhouses were to be erected,” thus demonstrating that, while, in the sense of the Legislature, weakminded persons are proper inmates of poorhouses, they are a different class from fatuous persons, who are classed with the insane as proper subjects for confinement in asylums or licensed madhouses” (p. 24).

It would appear, however, that by the Act of 1857, this class became incorporated with the other forms of insanity—at least no provision seems to have been made for their care and maintenance out of asylums. From these extracts it will be seen that, previous to 1857, a marked difference existed between the English and Scotch Law, three forms being recognised by the former—viz., idiots, lunatics, and persons of unsound mind—while four were recognised by the latter, viz., the furious, fatuous, idiots, and the facile; the three first of which were considered suitable and proper persons for treatment in asylums, and the last in poorhouses. One would naturally suppose that when the Act of 1857 (20 & 21 Vict. c. 71) was prepared, the terms established by the Scotch Law would have been carefully preserved, but we find such was not the case. The furious and fatuous classes, it is true, are comprehended in the Act; but other terms were also added, which may be regarded as the commencement of the confusion. Thus, in the interpretation clause of this Act, a lunatic is defined as meaning and including not only “any mad, or furious, or fatuous person,” but also “persons so diseased or affected in mind as to render them unfit, in the opinion of competent medical persons, to be at large, either as regards their own personal safety and conduct, or the safety of the persons and property of others, or of the public;” while in the 35th clause of the same Act we find the lunatic spoken of as “an insane person, an idiot, or a person of unsound mind.”

The next alteration we find in the definition of the term “lunatic” is an important one, and it is to be regretted that little can be said in its favour, beyond its extreme simplicity and extreme comprehensiveness; as there is little doubt the change has contributed not inconsiderably to the alleged increase of insanity, and to other mischievous results in practice. The new definition was established in 1862, when in the interpretation clause of the Amendment Act of that year (25 & 26 Vict. c. 54), it was enacted that “Lunatic, when used in this and the recited Act, shall mean and include every person certified by two medical persons to be a lunatic, an insane person, an idiot, or a person of unsound mind.” It is difficult to imagine

how such a clause could ever have been allowed to pass into law, for practically it amounts to this—that every person is insane and a lunatic who is certified to be so by two medical persons; and, conversely, that every lunatic can be made legally sane by two medical certificates to that effect.

The chief cause which appears to have led to this alteration in the definition of the term was the agitation at the time raised by the general medical profession, naturally dissatisfied with the ambiguity which existed in regard to the real legal definition, and as naturally anxious to secure themselves as much as possible from responsibility in granting certificates in cases of insanity; but the result—as was first pointed out, I believe, by the late Dr. Skae—was in a great measure simply to transfer this responsibility from the shoulders of the general profession to those of the asylum physicians. According to the definition clause of the Act of 1857, it was evidently the duty of those certifying persons to be insane to satisfy themselves that the patient was a lunatic in terms of the Common Law of Scotland; and although this in many cases may have proved no easy matter, in consequence of the obscurity which surrounds the subject, still, great assistance was afforded to those granting certificates under this Act, in so far as the certificates were in a measure subject to revision by the sheriff or his substitutes, whose duty it was to see that the facts mentioned in the certificate amounted to evidence of insanity in the legal sense, before granting their warrant for the transmission of the patient to an asylum. The definition adopted in the Act of 1862, however, may simply be said to have conferred on the general medical profession a power of manufacturing lunatics; for all that is now required under this Act is that the individual be duly certified by two medical persons to be a lunatic, an insane person, an idiot, or a person of unsound mind—and, whatever may be his real state of mind, a statutory lunatic he forthwith becomes. It does not even appear to be obligatory on the sheriff or his substitutes to examine the evidence of insanity given in the certificates; it would seem to be sufficient that they satisfy themselves that the certificates are drawn up in due form.

But it must be borne in mind, that while the sheriff's warrant gives full power for the transmission of such a statutory lunatic to an asylum, and for his reception therein, it confers no power of detention whatever in regard to time, so that the first question which the asylum superintendent has to consider is whether he is justified in detaining the patient at all. His first business, in fact, is to satisfy himself on a subject which ought to have been clearly established before the patient was brought to the asylum.

The only other change or alteration in the definition of insanity is where, in the third clause of the Act 25 & 26 Vict. c. 54, provision is made for the licensing of lunatic wards in poorhouses, for "pauper lunatics who are not dangerous and do not require curative treatment;" appearing to imply a belief on the part of the Legislature that the insane can readily be so divided into harmless and dangerous, and to those who require curative treatment and those who do not. To this, however, we will refer afterwards.

II. These remarks naturally lead to the consideration of another important question—namely, what is the amount of insanity required by the statute and common law to justify a person's detention in an asylum?—for it is clear that from the very earliest period it was never intended, or considered necessary, that everybody who might be insane, in the ordinary or everyday sense of the term, should be sent to Lunatic Asylums. We have already seen that, at one time at least, provision was expressly made that those of the poor whose insanity amounted to facility of mind, even when sufficiently extensive as to render them unfit to take charge of their own affairs, might be sent to poorhouses, apparently as ordinary paupers. Now, it is somewhat remarkable that in the Act of 1857 no definite information on this subject is given, although to a certain extent the legal view might be inferred from the 92nd Clause, which refers to the liberation of lunatics by relations or others in the following terms:—"It shall be lawful for any person, having procured and produced the certificate of two medical persons, approved of by the sheriff, of the recovery of any lunatic, or hearing that such lunatic may, without risk of injury to the public or to the lunatic, be set at large, and also an order from the sheriff for the liberation of the lunatic, to require the superintendent of the asylum in which such lunatic is to liberate such lunatic, and such lunatic shall be liberated accordingly.

In the 17th Clause of the Act of 1862, however, direct instructions have been enacted as to the discharge of patients, as follows: "When it shall appear to the superintendent of any asylum or house that any lunatic detained therein has so far recovered that he may be safely liberated without risk or injury to the public or the lunatic, such superintendent shall grant a certificate to that effect, or procure one from the ordinary medical attendant of such asylum or house, and shall transmit a copy thereof to the person at whose instance such lunatic is detained"—and so on, terminating in the patient's discharge from the asylum. Now, from a careful consideration of these extracts, it will be seen that, whatever may be the practice followed, the view entertained by the Legislature is,

that insanity alone is not sufficient to justify the detention of a patient in an asylum, but, in addition, there must be evidence of danger, or threatened danger, to the public, or to the patient himself. Indeed, the same spirit which originally directed that the furious should be cared for by the Crown, as the custodier of fetters, would appear to pervade the Act of 1862: for it is clear that it is not the care, cure, and treatment of the insane which are aimed at, but simply their detention and separation from the world, for the purpose of securing either their own personal safety or that of the public. But even with this explanation, we have not yet solved the problem as to the patients who may or may not be detained in asylums. The patient must be dangerous; but the element of danger in a case of insanity is a very variable one, and may depend on many different causes: for example, it will vary materially with the amount of supervision exercised by the patient's friends. In so far as danger to the public is concerned, there is, as a rule, no great room for doubt, although individual cases of particular difficulty may now and then occur. Assault, threatened injury, and probably also offensiveness to public decency—in fact, any act which, perpetrated or threatened by a sane person, would bring such an individual under the jurisdiction of a police-court—would no doubt be admitted as sufficient grounds for the patient's detention. When we consider the question of risk of injury to the lunatic himself, however, the case becomes considerably more complicated. As regards attempted or threatened suicide, there would be no difference of opinion: it is when we have to consider the probable risk of injury to the health of the lunatic, from mental inability to look after himself and his interests, or from neglect on the part of his friends to do so for him, that the unsatisfactory nature of this definition becomes fully apparent, for it is evident no two cases in this respect can be precisely alike. A person who has friends, able and willing to look after him, would not be suitable for detention, while another labouring under a similar amount of mental defect, without such friends, would be so; and thus the somewhat curious result is arrived at, that the legality of a person's detention in an asylum, so far as this can be ascertained from Scotch Statute Law, depends on the amount of supervision which his friends and relatives can and are willing to exercise over him at home.

As intimately related to the above subject may be considered the various ways in which patients may be discharged from asylums.

First, a patient may be discharged from an asylum in terms of the 17th clause of the Act 25 & 26 Vict. c. 54. This clause

we have already considered in its bearing on the question of the amount of insanity necessary to justify a patient's detention in an asylum, and need only be referred to here as showing that it is clearly pointed out that the complete recovery of the patient, in the ordinary sense of the term, is not to be waited for, but that the patient should be discharged as soon as his recovery has reached that point which renders him no longer dangerous to the public, and when, also, his discharge will not prove injurious to himself. In most cases the probable danger and risk to the public can be pretty closely estimated; but as regards the probable injury to the patient, we are met by the same difficulties which have already been discussed in regard to the question of the patient's admission: for here, as before, the probable risk to the patient will vary according to the amount of care bestowed on him after he has returned home. Secondly, the same remarks apply to the discharge of patients by the sheriff or Board of Lunacy, in terms of the 92nd clause of the Act 20 & 21 Vict. c. 71. By this clause power is conferred on the sheriff and on the Board of Lunacy to order the discharge of any patient on the application of any person having procured and produced the certificate of two medical persons, approved by the sheriff, of the recovery of any lunatic, or hearing that such lunatic may, without risk of injury to the public or to the lunatic, be set at large. Thirdly, a patient may be discharged by being transferred to another asylum, to houses licensed for a limited number of cases, or to the lunatic wards of poorhouses. It is only the last form of transference which here calls for attention. This is effected under the 3rd clause of the Act 25 & 26 Vict. c. 54, and refers to such pauper patients "only who are not dangerous, and do not require curative treatment." Here we have rather a startling innovation in the definitions which we have been considering. Hitherto they have been based, more or less, on the legal interpretations ascribed to them; but what is to be understood legally by the term a *harmless lunatic*, or where is the line to be drawn which separates those who do not require curative treatment from those who do? The answer to this is rendered all the more difficult when, as we have seen, that by the 17th clause of the Act 25 & 26 Vict. c. 54, it is incumbent on every Superintendent to discharge from his asylum (whence it would appear the harmless lunatics are to be transferred) every patient who has "so far recovered that he may be safely liberated without risk or injury to the public or the lunatic." Again, does the term "curative treatment" mean the application of all remedies, medicinal and hygienic, physical, mental, and moral, to patients only who can be so cured, or does it also include the same agents

employed for the amelioration and improvement of those where so satisfactory a termination cannot be expected? Further, is the term "patients who do not require curative treatment" to be regarded as necessarily synonymous with that of "patients who are incurable," or persons who have been duly submitted to treatment for a reasonable time, and whose recovery has to be despaired of?

The object of the Legislature in making the above provision would appear to have been, either to relieve existing asylums, by providing for patients of the imbecile or facile class, supposed to have accumulated in them; or to inaugurate a bolder policy—namely, to separate the curable and dangerous from those found by experience to have been incurable, and who for a time had committed no serious act of violence. Probably the former was the object originally intended, and if so, it is to be regretted that more definite instructions had not been enacted for the separation of these classes.

The statute does not specify the manner in which this is to be done, nor by whom, further than that the cases for the poor-house wards are to be chosen, "subject to such rules and conditions as the Board may prescribe," and "according to forms, and subject to regulations, approved of by the Board." These forms consist of the sanction of the Board, granted on the application of the inspector of the parish, accompanied by a statement of the patient's condition, and a medical certificate, generally granted by the parochial medical officer, that the person is "of unsound mind, not dangerous, and incapable of deriving benefit from treatment in an asylum," and "a proper person to be placed in the lunatic wards of a poorhouse." It would clearly be beyond the object of this communication to discuss the question whether lunatics should be placed in poor-houses or not, or to enlarge further on the subject. It will be sufficient to state that experience has shown the defects of this clause to be—first, a want of precision in the statutory definition of the cases to be removed; secondly, that the condition of the patient is liable to be made secondary, or subservient in consideration, to the question of available accommodation; and thirdly, that unsuitable, dangerous, and even convalescent patients may be selected for transference.

A patient may be discharged from an asylum by a minute of the parochial board to which the lunatic is chargeable. According to the Act 29 & 30 Viet. c. 51, two clauses, very similar in import, refer to this subject—the 9th Clause, by which "it shall be lawful for any parochial board, by a minute at a duly-constituted meeting, to direct that any pauper lunatic (not being a criminal lunatic), with whose maintenance it is

chargeable, and who is detained in any asylum or house, shall be discharged or removed therefrom," &c.; and the 11th clause, by which "it shall be lawful for any parochial board, by a minute at a duly-constituted meeting, to remove from the poor's roll any pauper lunatic, in any asylum or house, for whose maintenance it is responsible, and to entrust the disposal of such lunatic to any party who shall undertake to provide, in a manner satisfactory to the parochial board, for his care and treatment," &c. The only restriction upon the unlimited power these clauses confer on parochial boards is that, should the superintendent consider "that such lunatic is dangerous to himself or the public, or in any other way not a fit person to be discharged," he may report the case to the board (General Board of Lunacy), who, in their turn, may authorise the patient's continued detention. It does not appear to be in any way, however, obligatory on the part of the superintendent to do anything, or to interfere in this way; and it may thus be said, that these clauses virtually restore the pauper insane to the full control of the parochial authorities.

Finally, a patient may be discharged by the determination of the sheriff's order, in terms of the 7th clause of the Act 29 & 30 Vict. c. 51. This clause has always appeared to me an extraordinary one, because, in the first place, it can lead practically to no useful results; while in the second place, by limiting the duration of the sheriff's order to three years, it confers a power on this order which we have seen it did not originally possess, and at the same time suggests the idea that it has a penal force, as if sentencing the patients to a certain length of confinement—a feeling very much at variance with the present views of the treatment of the insane. If the object aimed at by this clause was that of securing that patients should not be unnecessarily detained in asylums, we have seen that this was already fully provided against by the 17th clause of the Act 25 & 26 Vict. c. 54.

From a careful consideration, then, of the clauses of the Scotch Lunacy Acts, so far as they refer to the admission into, detention in, and discharge of patients from asylums, it will be found that in many respects they are far from being in harmony with the practical object, now kept in view, in sending the insane to these institutions while to those who have carefully studied the history of this subject for the last twenty years, many of the enactments, especially those of more recent date, will no doubt appear distinctly retrogressive. We have seen, for example, that the principle aimed at by the statute is chiefly the detention of the lunatic as a dangerous subject,

rather than his treatment and cure as a patient; that by making a person's sanity or insanity depend on medical certificates, too great facilities are afforded of sending to asylums helpless paralytics, or others who may have become troublesome to their friends, if but the slightest mental infirmity can be detected in their cases; while in the attempted division of the insane into the harmless, dangerous, incurable, and those amenable to curative treatment, we have a legal enactment of a very unsatisfactory, impracticable, and unscientific character. It appears to me therefore that a considerable change in the legal terms will have to be made, before any really satisfactory reform can take place in the treatment and disposal of the insane poor. Many circumstances, especially the steady and gradual increase in the number of those now classed as lunatics, would appear to indicate that for the future Lunatic Asylums will have to assume more the functions of places of treatment and of curative establishments than they have hitherto done, whatever other arrangements may have to be devised for the disposal of the fatuous and imbecile insane; but before this can be effected, much clearer and more precise definitions of the various forms of insanity will have to be adopted by the Legislature, than those at present in use; and especially that the distinction between the patients who are to be sent to asylums for treatment, and those who are to be relegated to other establishments merely for conservation, should be clearly set forth by statutory enactment. In short, the mass of mental and physical degeneracy which is at present included under the general term of insanity, will have to be carefully sifted, before the full benefit which Lunatic Asylums are capable of conferring on the insane can be brought into operation: but it is evident that this can never be thoroughly done under a system of legislation which renders it possible that a helpless paralytic can, for convenience, be converted into a lunatic, or a lunatic converted into a sane person, and turned loose on society, merely by a few strokes of the pen; or that a convalescent patient, in the full and fond anticipation of being soon restored to his friends and his freedom, can by the same means be changed into a harmless and incurable lunatic, possibly to be sent to end his days in the lunatic wards of a workhouse.

ART. VI.—DISEASES OF THE NERVOUS SYSTEM.*

No. II.

By ROBERT BOYD, M.D. EDIN., F.R.C.P. LOND.

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Of these diseases, next in succession to Convulsions comes Epilepsy, which is essentially a convulsive disorder, and is closely allied to Idiocy. All epileptics under puberty in the Somerset Asylum were also idiots. Convulsions, epilepsy, and idiocy appear to form a natural order, a distinct class in themselves; whilst insanity in its various forms, which often alternate in the same individual, would form a second class of the functional disorders of the brain.

The practical reasons adduced for the division and separation of these classes are, that the association of epileptics with others in lunatic asylums is injurious, and that the younger idiots are capable of instruction, and ought to be removed to institutions established for that purpose. Convulsions were shown, in the previous number of this Journal, to be a common accompaniment and even, as it were, a forerunner of disease. In a severe epidemic of measles in the St. Marylebone Workhouse, *before* the eruption appeared, some infants died almost suddenly in convulsions.

Epilepsy, or the^e falling sickness, has been described under various names by the oldest medical writers. Sometimes it presents the most distressing symptoms, convulsive distortions occurring in paroxysms, attended with sudden loss of consciousness and sensibility, accompanied and followed by coma. The muscles of the face and eyes are much affected, also the muscles of the lower jaw, whilst at the same time a frothy moisture issues from the mouth. The convulsions have for some moments remissions, but are again suddenly renewed with great violence; after a short time they generally cease altogether, and the person remains without motion, but in a state of insensibility, and under the appearance of profound sleep. Sometimes suddenly, but for the most part by degrees only, the person recovers his senses and power of motion, but without any recollection of what passed from being first seized with the fit; all are sad and depressed after the attack. During the convul-

* An abstract of this Paper was read before the Medical Society of London on February 14, 1876.

sions, the pulse and respiration are hurried and irregular: but when the convulsions cease, they return to their usual regularity and healthy state. Dr. Reid remarks: "The first symptom of an attack is the suspension of the action of the heart, and consequently an intermission of the pulse, which may continue from a few seconds to about three minutes, which was the longest period of intermission I have yet seen." The effect of the common exciting causes of fright, grief, anxiety, &c., which most remarkably disorder the actions of the heart, show the importance of more frequently directing our attention to this organ in our researches respecting the nature and treatment of epilepsy. The form of the disease varies in different persons, or in the same person on different occasions. There is a form of epilepsy, termed by the French "*petit mal*," without convulsions. Dr. Prichard describes a form intermediate between apoplexy and spilepsy, preceded by vertigo, in which the patient falls insensible, but without rigidity or convulsions of the muscular system. In epilepsy, however, the functions of the brain are lost, while those of the spinal cord are increased.

In some cases the eyelids shut and open rapidly, and sometimes become fixed; the lips project and extend towards the ears, and are covered with frothy saliva; the tongue is swollen, and often cut between the teeth, the grinding of which is so violent that they are sometimes broken. Grinding of the teeth I have also observed in cases of general paralysis. Two remarkable instances occurred in the Somerset Asylum in males in a state of melancholia, combined with pulmonary phthisis—one of whom had convulsions, the other epilepsy. Esquirol states that frothing of the mouth occurs sometimes in apoplexy, asphyxia, and hysteria: "the pathognomonic character of epilepsy consists in convulsions, the entire suspension of sensibility, and loss of consciousness." In epilepsy the convulsions are concentrated, and are more violent on one side of the body than the other. In hysteria the convulsions are expansive, and are more uniform.

In many cases of epilepsy there are, or appear to be, no premonitory symptoms. On the other hand, there are persons who have only the premonitory symptoms of an attack. The convulsions not being general, perhaps only a convulsive movement of one limb, the head, or lips, presents itself, and there is sometimes only a stunning sensation. Some run, others turn round. These attacks of epileptic vertigo are often the prelude to the complete attack. Amongst the old cases in asylums, there is often a great difference in the severity and in the continuance of the attacks. In the severer forms the first intimation is a cry; the patient suddenly falls down insensible, and suffers from convul-

sions, which may either be general, or affect one side more than the other. The face is bloated. Epileptics sometimes howl, and sometimes make a noise like a person strangling. The neck is rigid, and the trunk and limbs in a tetanic state. The flexure of the thumb is frequent, and has been considered by some a distinctive sign of epilepsy. The "epileptic aura" (a term used since the time of Galen) is a sensation of cold, or, as it were, a vapour which goes from the external parts, or from the chest or abdomen, to the brain, when the attack is breaking forth. The inhalation of aromatics, or stimulants, or ligatures to the limbs, are at this time employed to ward off the attack. Many epileptics, when forewarned, endeavour to induce the attack by quarrelling, or imbibing stimulants. Long intervals may occur between the attacks, or they may occur daily, and even many times a day. The duration is from a few seconds to several hours. When the intervals are very long, the patient may be for days in an unconscious state, and have repeated attacks of convulsions, and death often occurs during one of those severe attacks. Amongst females especially, the attacks are said to return on fixed days.

With a view of fixing the treatment, the commonly adopted division of epilepsy is into "idiopathic," which arises in the brain or spinal cord; and "sympathetic," where the exciting cause is in some other remote organ. These terms are synonymous with "centric" and "eccentric," employed by Dr. Marshall Hall. The writers who believe in sympathetic forms admit that the seat of the paroxysm is the encephalon, its causes being often in other organs. Hence they subdivide the sympathetic species. Sauvages and Sagur (*Systema Morborum*) make as many varieties as there are principal exciting causes. A similar proposal with respect to insanity has been made by the late Dr. Skae, of Edinburgh, in his classification of mental diseases.

Epilepsy is complicated with defects or disorders of the mind in various ways. The following classification is recommended by the Metropolitan Commissioners in Lunacy: 1st. Epileptic idiots whose intellectual faculties have never been developed; 2nd. Epileptics who are imbecile or demented; 3rd. Epileptic maniacs, who, without obvious disorder of the mind, when epileptic fits are coming on, are irritable, morose, malicious, and dangerous, and sometimes perpetrate the most atrocious acts. In some instances the mental disorder has the form of acute mania, or rather raving delirium. The patient is seized with a sudden paroxysm, during which he sings, roars, shrieks, or resembles a man in a violent fit of intoxication.*

* A remarkable instance of this kind occurred in a man, aged 45, in the Somerset County Asylum, who was suddenly seized with a rapid succession of

4th. Epileptics whose intellects are *not impaired*. Boys and girls, when they have become a trouble to their parents, as well as dangerous to themselves, have sometimes been sent by Boards of Guardians to asylums for protection. The Commissioners do not consider this a sufficient reason for associating this class of epileptics with the insane.

Arrangements are made in dormitories for epileptics, that other patients may not be disturbed by them at night. In the day there is no special arrangement—they are classed with other patients. Some of them are rational in the intervals between their attacks, which may be for weeks, or even months, during which time they go to work daily with the other patients. In those epileptics in whom these intervals were longest, the attacks when they occurred were most severe and continuous—often confining them to bed for several days, and sometimes terminating fatally. Many epileptics—some imbecile or idiotic, some dangerous and of filthy habits, and some harmless—had also to be placed with other patients; for they could not be placed in a class by themselves, as the asylum would not admit of a subdivision.

Idiopathic epilepsy commences in early life; the attacks are irregular and occur without notice, and the convulsions are slight. Hereditary predisposition is a very frequent cause. Malformation of the cranium and lesions of the meninges and brain are given as causes. Inequalities in the cerebral hemisphere I have found not unusual in epileptics. Tumours of all sorts, cysts, and concretions in the brain have also been observed. The Wenzels, Sims, and others found changes in the pituitary and pineal bodies. Sympathetic epilepsy may be caused by worms, gastric and intestinal irritation, abscess of the liver, suppressed eruptions on the head—recovery in the latter taking place after the eruption was restored. Moxa applied to the nape of the neck, on the appearance of the first symptom, is said to have been followed by recovery. Idiopathic epilepsy, if not cured at puberty, remains incurable, and, according to Esquirol, epilepsy combined with insanity is never cured. In a case related by him, where the aura commenced in the great toe, the toe having been cauterized to the bone, there was no longer an aura, but the attacks were more violent and frequent than before. After numerous dissections of the brains of epileptics, both Foville and Andral agree that there is no special lesion

epileptic fits after receiving grievous intelligence respecting his wife. He was in good health, and had only about four fits in a month. Previous to the last attack, he reeled about like a drunken man, was sometimes in a state of stupor, and sometimes in a state of fury. He had 23 fits in two days, and died.

attending this malady. Andral insists upon the necessity of distinguishing between those cases in which the patient dies in a fit, and those in which death occurs in the interval, as in the former there will be congestion of blood in the cerebral vessels, which is the effect and not the cause of the fit, as some might suppose.

Although our knowledge of the causes and treatment of epilepsy has but little advanced since the days of Hippocrates, numerous writers have not failed to give their different views on the subject. Mr. Monsford, on the supposition that the nervous and electro-motor fluids are identical, has contended that the brain is constantly generating them, and that in health they are controlled by the will in opposition to their natural tendencies—their formation, retention, and discharge thereby being duly regulated; but when weakened by disease, this control is irregularly or imperfectly exercised, and their accumulation is favoured, until it reaches its maximum, when it explodes in an epileptic seizure. This opinion is founded on the identity of nervous influence with the electric, to which few will subscribe. Dr. Brown-Séquard states that in many cases an unfelt irritation starts at the same time as the aura, from some centripetal nerve, and is the real cause of the epileptic seizure. Epilepsy often occurring without any appreciable cause, it is necessary to admit a predisposing and a specific cause. S. Frank states that of 300 cases investigated by him, very few occurred in persons who had been perfectly healthy previous to the accession of the disease. Tissot has treated specifically of the diseases which precede epilepsy. Copland considers it nearly related to apoplexy on the one hand, and convulsions on the other: in its more idiopathic states to the former, and also to mania and idiocy; and in its symptomatic states, to the latter, to hysteria, ecstasy, and some other nervous affections.

Dr. Alison states that there are hardly any chronic local diseases in which congestions of blood do not occur—as in very various derangements of the functions of the nervous system, such as headaches, giddiness, transient imperfections of sense or of memory, fits of epilepsy, of hysteria, or other spasms, even of mania, in those predisposed to these diseases. Some cases of transient paralytic affections, and many of apoplexy, appear to result from simply increased afflux of blood to the brain without rupture of its vessels, disorganisation of its texture, or even increased effusion of its serous fluid. Burrows has shown that the vessels of the brain may contain a larger quantity of blood at one time than another. Dr. Sieveking, in his learned treatise on Epilepsy and Epileptiform seizures, gives the comparative statistics of that dis-

ease. He refers to Brown-Séquard's experiments, and remarks that the seizures in the guinea-pig appear to have borne much more the character of tetanus than of epilepsy. In epilepsy in the human being, the evidence shows the brain to be the organ primarily involved. Dr. Sieveking does not adopt Sir T. Watson's views with regard to the absence of cerebral congestion in the epileptic paroxysm; but fully agrees with him in his views in relation to the brain and spinal cord in epilepsy—namely, that there are good reasons for believing that the change, whatever it is, which is the cause of the epileptic fit, may originate in the spinal cord, and thence extend to the brain and *vice versâ*. With regard to the part of the brain itself affected in epilepsy, Sauvages long since ascertained, by experiment, that the hemispheres of the denuded brain may be punctured without exciting sensibility; but that, as soon as the instrument reaches the origin of the nerves, or the *medulla oblongata*, epileptic convulsions are produced, and hence concluded, that whatever especially affects those parts, may induce the disease. Dr. Marshall Hall's doctrine, that all convulsive diseases are diseases of the spinal cord cannot properly be applied to epilepsy. In the epileptic vertigo, or "petit-mal," there is frequently a suspension of consciousness without any convulsion at all. The brain is therefore essentially concerned.

Epilepsy appears to be a functional disorder of the brain and spinal cord. Fright has induced convulsions, which have been repeated till they terminated in a most deplorable case of epilepsy. The symptoms, even though so severe as to cause death, and that suddenly, often leave no post-mortem change from what is considered the ordinary healthy condition of the nervous centres. No doubt changes from the ordinary state are found frequently in the skull, in the membranes of the brain and spinal cord, and in the structure of the nervous centres, in cases of epilepsy; but the same changes are found in the bodies of those who have never been subject to epilepsy. Some of these changes—such as thickening and opacity of the membranes, with an increased quantity of fluid in the ventricles, I believe to be a natural decay, which may be premature, or, when the brain becomes diminished in size, the effects of old age. In epileptics there is sometimes found a partial absorption or diminution in the size of the brain, and, on the other hand, it is sometimes found enlarged. An instance occurred in a young man, aged 23, affected with epileptic fits from childhood. Three days previous to his death a rapid succession of fits came on; his respiration was laboured, at times, indeed, almost suspended, with frothing from both nose and mouth in large quantity. The chief peculiarity in this case was the great size of the encephalon, which appeared to

be too large for the skull, and weighed 3 lbs. 6 oz. Another rapid case occurred in a boy aged 14, a congenital idiot, of a healthy family, and the fourth of eleven children, whose mother had had a fever and was in a bad state of health for six months preceding his birth. At the age of 12 he became violent and dangerous to the younger children, and was sent to the asylum, where he had for the first time an epileptic seizure. He had, however, only two fits, at long intervals. The day before his death he had twelve fits, fell into a comatose state, and died at noon. The head was unusually large, forehead prominent; the encephalon weighed upwards of 3 lbs., and the cerebral vessels were congested with blood.

Enlargement of the brain in cases of sudden death was first observed at the St. Marylebone Infirmary by Dr. Sims. Several cases occurred in that institution, when, after a careful examination, no other cause for death could be discovered.

Two epileptic females in the Somerset Asylum had a peculiar appearance: both having hemiplegia, were crippled, one on the right, the other on the left side; the right wrist in one of them was much contracted, the hand almost useless; the arm and thigh on that side were each two inches smaller in circumference, and also shorter than the opposite limbs, and both patients walked with a limp. These peculiarities in the limbs existed in both from childhood. The fits were less severe in these cases, and the patients were sharper in their intellects than the other epileptics. One of them learned her alphabet, and also to spell, after her admission to the asylum, and had an inclination to learn. They were both passionate and spiteful; and one of them, not so fond of learning as the other, was particularly given to thieving. I had never seen any notice of similar cases, but had had previously several opportunities of examining the bodies of such patients after death, having invariably found a deficiency in one cerebral hemisphere, which in nearly every instance was on the side opposite to the paralysed one. A most remarkable case of the kind occurred in 1842. A man, aged 47, fell in a fit in the street, and was brought to the St. Marylebone Infirmary, where he died shortly afterwards. The left extremities were very much smaller than the right. It was ascertained, at the coroner's inquest, that he had always been lame on the left side, with the arm contracted; that he was slovenly in his habits, a miser in disposition, and an inordinate eater. His business had been that of a linendraper; he was considered a good accountant, and had been at one time a lawyer's clerk. On making the post-mortem examination, a large quantity of fluid escaped which was confined in an abnormal membrane over the right

cerebral hemisphere, the convolutions of which were wanting, and which was only half the size and weight of the other, viz. $9\frac{1}{4}$ oz. The left hemisphere weighed $18\frac{1}{2}$ oz., which is not above the average weight in an adult male. A notice of these cases of arrest of development, with a drawing of one, from the brain deposited in the Museum of the Royal College of Physicians, will be found in the 39th volume of the "Transactions of the Royal Medico-Chirurgical Society of London."

In 45 out of 89 male epileptics, there was an inequality in weight of from $\frac{1}{4}$ to $6\frac{1}{2}$ oz. between the two hemispheres; also in 35 out of 61 females, an inequality of from $\frac{1}{4}$ to $2\frac{1}{2}$ oz.

1. The youngest case of epilepsy recorded in the necrological register of the St. Marylebone Infirmary was that of a male infant of one month. When a fortnight old, the baby had fits similar to those of its mother, who had been for some years epileptic. The fits were almost continual; abscesses formed on the left knee and right hand. *Head* and brain, natural; weight of encephalon, $13\frac{3}{4}$ oz. *Chest*: an ulcer, size of half-a-crown, which had eaten its way from the surface between the costal cartilage, through the anterior mediastinum, to the anterior edge of each lung; right lung, $1\frac{1}{2}$ oz.; left, 1 oz. The other organs natural.

2. A cabinetmaker, aged 34, imbecile; epilepsy of four years' standing; ten weeks under treatment in the Infirmary. *Head*: much fluid in the cerebral ventricles; brain small, $37\frac{1}{2}$ oz. *Chest*: lungs natural; heart small, $6\frac{1}{2}$ oz. *Abdominal organs* small.

3. A bootmaker, aged 35; married; epilepsy for four years, combined with mania. He suffered acute pain in the head, for which he had been occasionally under medical treatment at his own home, and also in the Infirmary. His illness was so severe that for the last year he was unable to follow his trade. The fits came on in rapid succession the evening before and continued to the night of his death, with scarcely five minutes intervening. *Head*: arachnoid thickened, brain quite hard and wasted—it did not nearly fill the skull. The process on the right side of the "sella turcica" projected three times as high as the opposite one, and the *sulci* in the right parietal bone were unusually deep, and had high sharp edges; the encephalon weighed $41\frac{1}{4}$ oz. *Chest*: old pleuritic adhesions; organs natural. *Abdominal organs* natural.

4. A linendraper, aged 40, long subject to epileptic fits, and an habitual drunkard. Brought to the Infirmary by the police, having fallen down in the street as if shot through the head. He had a severe wound on the forehead. In a few hours after he had a severe fit, and was violently convulsed. He was relieved after being cupped, and the next day was quite rational. On the day following the fits again returned, and continued with short intermissions for thirty-six hours, when he died. *Head*: general congestion of blood in the brain. *Chest*: heart enlarged, $14\frac{1}{2}$ oz. *Abdomen*: liver large and fatty, 75 oz. Other organs natural.

5. Male, aged 19, epileptic, died of typhus; the ridges of the skull unusually prominent in the temporal fossa; brain, $46\frac{3}{4}$ oz.

6. Male, aged 20; subject to epileptic fits for four years from a fright; died of typhoid combined with pneumonia. An encysted tumour or gelatinous bag, the size of a filbert, was found on the left cerebral hemisphere, with thinning of the corresponding portion of the skull. In other respects the brain natural; weight, $47\frac{1}{2}$ oz.

7. Male, aged 18, epileptic; found dead in bed in Idiots' ward in the St. Marylebone Workhouse. Had epileptic fits since he was five years of age. Hemiplegia of the right side, the wrist firmly flexed, the right ankle likewise flexed firmly; the right lower extremity one inch shorter than the left; the right thigh was two inches less in circumference, 17 inches, the left 19 inches; the calf of right leg was $10\frac{1}{2}$ inches, the left 13 inches; and the right arm and forearm were two inches less in circumference than the left, owing to arrest of development. *Head*: the left cerebral hemisphere was devoid of convolutions, their place occupied by fluid contained in the meshes of a thick membrane; the cerebral structure, brown and tough, giving considerable resistance to the knife, compared with the rest of the brain. Right cerebral hemisphere, natural, $21\frac{1}{2}$ oz.; left, $14\frac{3}{4}$ oz.; cerebellum, $4\frac{1}{4}$ oz.; medulla, $\frac{3}{4}$ oz.; encephalon, $41\frac{1}{4}$ oz. *Respiratory and abdominal organs* natural. Height, 5 feet 1 inch; weight, 104 lbs.

8. A whip-maker, aged 19; died of typhus four days after his admission to the Infirmary. For several years he had been subject to epileptic fits, and was reported to have frequently had as many as thirty fits in the twenty-four hours. *Head*: brain quite natural; weight, $46\frac{3}{4}$ oz. In the left temporal fossa the ridges were unusually prominent, but not so on the opposite side. The head only examined.

9. Male, aged 25, admitted with gangrene of the lung to the infirmary from the Idiots' ward in the workhouse. The epileptic fits were reported to have come on about eight years before, from a fall off a ladder and fracture of the skull. He was seldom more than three days at a time free from fits, and sometimes had five or six at night; sometimes noisy and troublesome. Gradual emaciation. *Head*: large healthy brain, 49 oz.; no sign of fracture of skull; the process on left side of basilar more pointed than usual. *Chest*: recent lymph on right lung; the anterior portion of the upper lobe gangrenous, $40\frac{1}{2}$ oz., left, $27\frac{1}{2}$ oz.; heart, $9\frac{3}{4}$ oz. *Abdominal organs* natural.

10. Horse-dealer, aged 33. Epilepsy combined with mania. Fits of recent occurrence, succeeded by mania; under treatment nearly three months, arachnitis, roughness of the lining-membrane of the fourth ventricle; brain large; weight, $51\frac{1}{2}$ oz. No organic disease in chest or abdomen.

11. Male, aged 41, epilepsy combined with idiocy, congenital; a brotner likewise epileptic. Brain small, in other respects natural; weight, $38\frac{1}{4}$ oz. Died from pulmonary phthisis.

12. Surveyor, aged 48; epilepsy combined with mania; fits very frequent, as many as fifteen reported in one night; had been subject to them for many years; they were supposed to have been caused by too close application to his business; under treatment for three months previous to his death. *Head*: the vessels of the brain were congested

with blood; that organ was unusually large; weight $53\frac{1}{2}$ oz. *Chest*: pneumonia of the left lung. *Abdomen*, organs natural.

13. A girl, aged 12; subject to epileptic fits since she was five years old. A large head, very broad posteriorly, narrow across from ear to ear. She has had as many as thirty-two fits in the twenty-four hours, never for a day quite free; seldom less than ten in a day; when tolerably free in the day, six or eight generally occurred during the night. *Head*: brain large and extremely firm, no other change; $41\frac{3}{4}$ oz. Other organs natural.

14. Female, aged 27, an epileptic for many years. Admitted from the Workhouse to the Infirmary, for gangrene of the lung, eight days before death; had also obstinate constipation of the bowels. *Head*: œdema of the pia mater, and softening at the base of the right cerebral hemisphere, with opacity of the arachnoid and gelatinous appearance of the membranes; the encephalon weighed $40\frac{1}{2}$ oz. *Chest*: a small portion of the back part of lower lobe of right lung gangrenous; redness of the bronchial membranes; right lung, $14\frac{3}{4}$ oz.; left, $13\frac{1}{2}$ ozs. *Abdominal organs* natural. Height, 4 feet 10 inches; weight, 80lbs.

15. Female, aged 32. Has had epileptic fits for the last three years, which recently have greatly increased in frequency. Admitted to the Infirmary only two days before death, having lost all power in the left side four days previously. She had convulsions almost without intermission. Consciousness remained till the day before her death. *Head*: congestion of blood in cerebral veins, opacity of arachnoid, anterior portion of the right hemisphere adherent to membrane, and a portion of brain of the size of a walnut disorganised, yellow, and in structure cellular, and filled with serum; encephalon, $46\frac{1}{2}$ oz. *Chest*: pneumonia lower lobe, right lung, 23 oz.; left, 17 oz.; heart, 9 oz. *Abdominal organs* natural.

16. Female, aged 34, in Workhouse; epileptic fits periodic, not frequent. Stupid at the time, but well in the intervals. *Head*: cerebral convulsions flattened. Weight of encephalon, 48 oz. *Chest*: right lung, 16 oz.; pleuro-pneumonia of left, 34 oz. Other organs natural.

17. Female, aged 38; epilepsy since infancy. She died unexpectedly in a fit, and had been an inmate in the Workhouse for years. When between four and five years of age after a fit, she had lost partially the power of left side, and the convulsions were ever afterwards strongest on that side, being most frequent in warm weather. Bowels constipated, menses irregular and scanty. *Head*: right cerebral hemisphere small, $18\frac{3}{4}$ oz.; left, $20\frac{1}{2}$ oz.; cerebellum, $5\frac{1}{2}$ oz.; pons, 1 oz.; encephalon, $45\frac{3}{4}$ oz. Other organs natural.

18. Female, aged 40. A congenital idiot, subject to epileptic fits from childhood. She died in the workhouse ward for idiots. *Head*: small, skull unusually thick, the cerebral vessels congested with blood, nearly an ounce of clear fluid in the lateral ventricles; weight of the brain, $38\frac{1}{2}$ oz. Other internal organs natural.

Analysis of the eighteen foregoing cases of epilepsy, twelve males and six females.

The weight of the encephalon was natural in the infant, also very nearly so in the two males, as compared with the average weight of the encephalon in the sane, which is found to be nearly 46 ounces avoirdupois in the male, and 42 in the female adult. In one male no weight is given, in three males and four females the brain was *above* the average weight; and in two males and two females below it; both of the males and one of the females being idiots. In one of the males there was a remarkable difference between the cerebral hemispheres, one being only two-thirds the weight of the other, which was the cause of the arrest of development of the limbs on the opposite side (Case 7).

In one of the females there was also a difference of two ounces between the cerebral hemispheres. Death was sudden in these cases, and there was no other serious organic disease, beyond the chronic affection, viz., the inequality of the two cerebral hemispheres. Sharp bony ridges and projections in the base of the skull were observed in three of the males; in one male acute pain in the head was persistent. One was a confirmed drunkard. An encysted tumour was found in one male, and the skull above it was partly absorbed. A cyst occurred in one of the females; congestion of blood in the brain in two males and one female; arachnitis in two males and one female. The brain and membranes natural in two males. There was softening of a portion of right cerebral hemisphere in one female, and fluid in the ventricles in one female.

The disorder was combined with typhus fever in two males, and in one of them also with pneumonia; in two males and two females with pneumonia alone; in one female with pleuro-pneumonia; in one male and one female, with gangrene of the lung; in one male, with pulmonary phthisis.

Two of the males and two of the females were idiots, and in two males the disorder was combined with mania or raving delirium.

Esquirol found in 339 epileptics that four-fifths were more or less insane.

In the Somerset County Lunatic Asylum during twenty and a quarter years, $9\frac{1}{2}$ per cent. of the patients admitted were subject to epileptic fits, combined in the young under twenty years with idiocy; in those of more advanced years very frequently with mania and with other forms of insanity. Contrary to the experience of Esquirol, who states the number of female epileptics to exceed the males by one-third, of the 310 epileptics in the Somerset Asylum, the males exceeded the females by nearly a sixth. Esquirol considers epilepsy to be contagious by the fright which an attack occasions to some beholders. This

opinion is supported by the facts previously stated relative to the contagiousness of convulsions, so fully described in Hecker's "Epidemics of the Middle Ages." This disorder is so closely allied to epilepsy that many persons hardly make a distinction between the two. Teething in infancy is regarded as a frequent cause of *convulsions*. An experienced dentist informed me that he has known the cutting of the wisdom teeth to cause *epilepsy*. So here the making of a distinction would seem to be influenced simply by age. The greater size of the head in the male foetus, and consequently its greater liability to injury in parturition, renders the male more liable than the female to convulsive diseases in early life. There were at least three remarkable instances of persons not known previously as epileptics having been seized with epileptic fits after kindly giving their assistance to patients in their attacks; one a sempstress (251), aged 66, three years after admission had, for the first time, epileptic fits, 33 occurring within four months. The fits continued for a year, gradually becoming less frequent. Her mental state ultimately improved, and at the end of seven years she was discharged, relieved.

It is certain that in some cases of insanity epileptic fits have been induced by frequently witnessing them in others, and that the association with epileptics is hurtful to the insane. The Metropolitan Commissioners in their report made it a matter of complaint that the epileptics in asylums were not separated from the insane. Instead of enlarging the present asylums it would be very desirable if some adjoining counties were to unite and build suitable asylums for epileptics and idiots, or appropriate some of the workhouses for that purpose, many of them being comparatively empty. The facilities under the Lunacy Acts, and recent legislation have enabled parishes to transfer their aged and troublesome paupers, and fill the county asylums with unfit cases.

Some time ago it was reported that an hospital for 2,000 epileptics, not insane, was to have been established in the South of France. The means thus obtained for the study of the milder forms of the disorder would probably lead to beneficial results.

The terminations of the 310 cases of epilepsy, 181 males and 129 females, admitted to the County Somerset Asylum were:—

Recovered for the time, 6 males, 2 females.

Relieved, 10 males, 11 females.

Not improved, 17 males, 11 females; transferred to asylums and friends.

Died, 103 males, or 57 per cent.; 65 females, or 50 per cent.

Remaining in asylum, 45 males, or $24\frac{3}{4}$ per cent. ; 40 females or 31 per cent.

In two of the six recoveries in the males, the fits were attributable to excessive drunkenness, not an uncommon cause in the experience of military surgeons.

The first of these (441), a flyman, had imbibed freely on a holiday, at Cheddar Cliffs, the favourite resort of excursionists in the neighbourhood. He was subject to fits, and had attempted suicide on this occasion ; but his senses very soon returned, and he was discharged at once. The 2nd case (1,082) was of much longer duration ; a printer, aged 37, married ; was admitted on three separate occasions in three years, once after an interval of thirteen months between the attacks, and again after an interval of twenty-one months, each attack being attributable to the same cause—namely, excessive drinking. The fits were attended with mania, and he was dangerous both to himself and others. Being quite rational, he was discharged on probation. He had been free from fits for a month previously. The 3rd (541), a carpenter, aged 62, married ; was a case of eclampsia of two years' duration, who had been for one week reported as dangerous to himself and others. Pulse 96, health indifferent, fancies he is bewitched, and that his wife exercises supernatural power over him. Two months after admission he took diuretics for œdema of the legs ; he worked in the carpenters' shop ; the fits came on suddenly, and he would fall if not caught. He lost consciousness, but never frothed at the mouth, or was convulsed ; grasped tightly anything he might have in his hand. There was the spasm and contraction, alternating with relaxation as in convulsions. At the expiration of five months he was discharged recovered. The 4th (799), a labourer, aged 43, married ; first attack ; duration, thirteen years ; dangerous one week ; attempted to injure his wife and children ; maniacal ; fits sometimes lasted three hours ; intervals of two and three months. He was discharged relieved, and again admitted, after nine years, in a similar state, violent and destructive. At the end of five months he was discharged recovered for the time. The 5th (1,014), a carpenter, aged 38, married ; first attack, eighteen months' duration ; health indifferent ; pulse 75. Fits mostly occur at night, and are peculiar ; he does not seem entirely to lose consciousness. There is no frothing at the mouth, or spasmodic action of the limbs, but jactitation of the whole body, and he knocks himself about violently. After eight months fits became less frequent, and in eighteen months he was discharged, having been for three months free from fits, and rational. The 6th, and last male (1,069), an ostler, aged 28, single ; brought from the Bridgewater Infirmary, after having had an epileptic fit combined with mania three days previously ; fits not frequent or severe ; in a convalescent state in six months, and discharged in eight months, recovered.

A laundress (213) aged 24, married ; with child ; was admitted for a second attack of epileptic mania, which, like the present, came on during the seventh or eighth month of pregnancy. She was violent

towards her husband; good health; pulse 104; fits occur about one in a week; her previous attack, two years ago, was of two months' duration; during the interval to this attack she remained free. She seemed free from all dislike to her husband in a month after her admission, when he visited her, and she was discharged five weeks after admission recovered for the time, and had her confinement shortly afterwards.

A female (284), aged 25, married; two children; first attack since her last confinement, seven months before admission; she has been unfitted to attend to her household duties. Her only delusion is that she is bewitched, and she beat her mother-in-law, whom she fancied bewitched her, thinking that if she drew her blood, and that of her children, she would be relieved; pulse 84; indifferent health; had an attack combined with hysteria, during which, in the night, she screamed and threw herself about violently, as did the male (1,014). She got over her delusions, and at the end of fourteen weeks was discharged, recovered for the time.

Ten cases of epilepsy in males discharged, relieved.

A labourer (75), widower, aged 72; subject to epileptic fits three years previous to admission to the Somerset Asylum; both his parents lived to be aged; a paternal uncle had epilepsy; of his nine children, four daughters were epileptic; in bad health from asthma; pulse 90; he had fallen into the fire and into the river. This is his second attack. His first attack was eleven years before, on the death of his wife, and he was afterwards for seven years free from fits. After his admission he had three fits in the Asylum. His bodily health improved, and after five months he was discharged to his home, relieved.

A gardener (76), married, aged 57; his third attack; of intemperate habits in drinking; fits occurred at considerable intervals, and were very severe; pulse 72; he took the tincture of sumbul for some considerable time; was quite rational, and, after several years, discharged, relieved.

A hairdresser (133), married, aged 40; the second attack. In his first attack, seven years previous, he had a fall, and struck the back of his head with great force. He was addicted to drink; pulse 92; had ulcers on both legs, which were also œdematous. The ulcers healed; his health improved; he worked at his trade; and, at the end of four years, he was discharged, relieved, and went to assist his son, a hairdresser, in London.

A thatcher (315), married, aged 45; his fourth attack; case of two years' duration; maniacal: has several delusions; pulse 94; has a sister an idiot. Soon after admission he had several fits; remained thirteen months in the Asylum, and being free from fits for the last four months, was discharged, relieved.

A labourer (610), aged 50, married; third attack; excited, and attempted suicide, first attack, seven years before admission. He had forty-seven fits by day and ten by night, in one year; he was discharged after nearly three years' residence in the Asylum, relieved.

An excavator (762), aged 35, married; third attack; seven months' duration; pulse 98; excited and violent; took phosphate of zinc.

Had no fit for two months previous to his discharge; twelve months in the Asylum.

A butcher (801), aged 30, married; second attack; duration, seven years. Cause, a blow on the head; violent fits occur almost daily; pulse 90 or more; four fits in a day. Discharged in three months to his home, relieved.

A collier (1,322), aged 17; second attack; six months' duration; cause, an injury to the head; maniacal; pulse 90; after two months he had but two fits in the month. He was discharged to his home at the end of five months, relieved.

A tailor (1,349), aged 23, single; first attack; three years' duration; his father's mother insane; violent occasionally; bad health; pulse 84; his health gradually improved, discharged in twenty-one months to his home, relieved.

A labourer (1,414), aged 37, single; subject to fits from childhood, which occur about every six weeks; maniacal occasionally and incoherent; health indifferent; pulse 78; he became phthisical and quite rational; discharged to his home two-and-a-half years after his admission by the desire of his father, relieved.

Eleven cases of epilepsy in females discharged, relieved.

An agricultural labourer (No. 44), married, aged 55; three months before had for the first time epileptic fits, with melancholia, after the fatigue of attending on a sick daughter. None of her relatives subject to fits. Her health improved slowly and fits became less frequent. Discharged to her home in twelve months.

An upholsteress (57), married, aged 46; fourth attack, of eight months' duration; her parents lived to be aged, and she has had eight children and four of the number died in convulsions, and a daughter subsequently became epileptic and insane. Has worms (*lumbrici*); fretful and desponding; pulse 90; fits of daily occurrence. Her husband stated that her first attack came on after taking some drugs from a quack doctor for worms. She was upwards of fourteen months in the Asylum before any permanent amendment took place. She had anthelmintics, also cotyledon umbilicus, and finally tincture of sumbul. She was discharged in eighteen months, having had but one fit in the three last months.

A laundress (80), single, aged 52; first attack of twelve years' duration; maniacal; destructive; fits principally occur at night, and are very frequently as many as ninety-six in twenty-four hours; pulse 90, reduced by infusion of digitalis to 64, a large flow of urine being caused. No fit for a month, she passed *lumbrici*, fits were less frequent afterwards, and in two years she returned home.

A laundress (213), married, aged 24; had a previous attack. Both came on during pregnancy; fits occur once a week; maniacal. She became quiet after admission, and soon improved in health and was discharged to be confined five weeks after admission, to the Bath Union.

A charwoman (370), single, aged 37; attacked after a fright, three years before; maniacal; had a brother in the Asylum demented;

health good ; pulse 86 ; had five fits in the first month after admission, and so continued for two years, when the fits became less frequent. In the winter of her fourth year in the Asylum she had an apoplectic fit ; hemiplegia of the right side and gangrene of the toes. Six months afterwards she so far recovered as to be able to dress and feed herself ; was quite sensible and rational ; and in a year returned to her friends, having been four years and ten months in the Asylum.

A widow (371), aged 70 ; fits of three months' duration ; troublesome in the workhouse ; had only four fits in six months ; quiet and harmless ; discharged after being four-and-a-half years in the Asylum.

A sempstress (594), single, aged 24 ; after fever ; second attack ; strumous habit ; destructive and violent ; case of six weeks' duration ; pulse 78. She gradually improved under use of cod-liver oil. She was one year in the Asylum.

A sempstress (774), single, aged 33 ; in bad health ; subject to epileptiform seizures for ten years, more like "syncope recurrens" than epilepsy. She had been violent occasionally at home. After taking tincture of sumbul, the fits became less frequent, and she was discharged in ten months.

A tailor's wife (823), aged 50 ; subject to epileptic fits for thirty-six years ; violent for three weeks ; had been in Colney-Hatch Asylum for six months ; five or six fits in a month. After seven months in the Asylum, she was discharged, relieved.

A female (1,376), single, aged 17 ; for two weeks violent ; bad health ; a quick pulse ; had eight fits in the first month ; general health improved ; only one fit the month previous to her discharge six months after her admission.

A laundress (1,493), married, aged 47 ; the second attack of seven weeks' duration ; had seven daughters, four of whom were alive ; first attack after the birth of her third child ; dangerous to others ; fits not frequent but severe ; one month free from them. Returned home after six months' residence in the Asylum.

In these twenty-one cases which were relieved, *age* does not appear to have influenced the result, and as regards the civil state, 3 males and 5 females were single, 6 males and 5 females were married, and one of each sex widowed. All the males with one exception, and 4 of the females, had one or more previous attacks. The pulse on admission, in the majority of cases in both sexes, was above the natural standard. The *causes* assigned were, in 3 males, drunkenness ; in 2, injuries to the head ; in 2 males, phthisis ; and 3 females, bad health, 2 of them had worms ; 2 males and 2 females inherited the disease ; in 1 female during pregnancy, being the second attack from the same cause ; in 1 female from fright and anxiety ; in 1 female it was combined with hysteria ; and in 1 with syncope ; in 1 male and 2 females no cause was assigned. Two of the females had lost several infants in convulsions ; one of them had lost 4 out of 8 from that cause.

Post-mortem examinations were made in 155 of the 168 fatal cases—94 in males and 61 in females. The following is a summary of the results in each sex at decennial periods of life: AGE—under 20 years: there were 8 males and 1 female, all of whom were congenital idiots:—the period from 20 to 30 included the greatest number of males—31; *i.e.*, nearly a third, and only 12 females:—from 30 to 40 years there were 20 males and 23 females, being the greatest number of the latter sex, and above a third of the whole number:—from 40 to 50, the numbers fell off to 13 males and 14 females:—from 50 to 60, there were 9 males and 7 females:—from 60 to 70, 6 males and 3 females:—and from 70 years upwards, 7 males and 1 female. It thence appears that epilepsy is most prevalent at an early age, and also, that the greatest mortality is at an earlier age in males than in females.

The forms of mental disorder at the decennial periods of life were under 20 years, as already stated; all were idiots, and with two exceptions among the males, violent and dangerous:—from 20 to 30, 6 males and 4 females were violent and dangerous idiots; 19 males and 6 females were maniacal; 3 males melancholic; and 3 males and 2 females demented:—from 30 to 40, 2 males and 3 females were idiots; 13 males and 18 females maniacal; 4 males and 1 female melancholic; and 1 male and 1 female demented:—from 40 to 50, 1 male and 1 female were idiots; 7 males and 8 females maniacal; 1 male a monomaniac; 4 females melancholic; and 4 males and 1 female demented:—from 50 to 60, 1 male and 1 female were idiots; 5 males and 3 females maniacal; 1 male and 2 females melancholic; and 2 males and 1 female demented:—from 60 upward, 1 female was idiotic; 8 males and 1 female maniacal; 1 female melancholic; and 5 males and 1 female demented.

CAUSES—Under 20 years all the cases, *viz.*, eight males and one female were congenital or dated from infancy. The disease was hereditary in one male.

From 20 to 30, the disease was congenital in eight males and three females: it existed from childhood in two females, was hereditary in one male and two females.

Amongst the other causes were bad health after fever in one male and phthisis in one female, falls and injuries in four males, critical period in one female, fright in two males, religion in one male, and the cause was not ascertained in fourteen males and three females.

From 30 to 40, congenital in one male and four females; from childhood in one male and two females, hereditary in five males and four females; cerebro-spinal disease in two males; falls and other accidents in three males, pulmonary disease in one male, grief in one male and three females, love in one

female, fright in two males; cause not ascertained in four males and nine females.

From 40 to 50, congenital in three males and one female; from childhood in two males and one female, hereditary in one male, cerebral disease in one male and one female, injury to head in one male and one female, puerperal in one, fright in one female, religion in one female, poverty in one female, intemperance in two males; cause not ascertained in three males and seven females.

From 50 to 60, congenital in one male and one female, hereditary in one female, puerperal in one, cerebral disease in one male, grief in one female, intemperance in one female; not ascertained in seven males and two females.

Upwards of 60, congenital, one female; injury to head, one male; poverty, one male; fright, one male and one female; not ascertained, ten males and two females.

Assigned cause of death at each period of life.

Under twenty years, in eight males and one female—meningitis in one male and one female, hypertrophy of the brain in two males, combined with pulmonary phthisis in one and enteritis in the other case; cerebral apoplexy in one male; pulmonary phthisis in one male; pneumonia in one male; two males died from asphyxia in fits, one of them was cachectic. From 20 to 30 years, the causes in thirty-one males and twelve females were meningitis in five males, combined with pulmonary apoplexy in one, and erysipelas in another; the latter was also the cause in one female; congestion of blood in the cerebral vessels in five males and one female; cerebral apoplexy in three males and in two females, with p. phthisis in one; apoplexy of the spinal cord in two males; hypertrophy of the brain in two males, with pneumonia in one; cerebritis and myelitis in one male and myelitis in two females; pneumonia in six males, combined with bronchitis in two cases, as it was also in two females. It was associated with gangrene of the lung in one female. Scrofula was the cause in two males; pulmonary phthisis in five males and four females; peritonitis in one male; ulcer in the stomach in one male.

From 30 to 40 years, in 20 males and 23 females:—meningitis in 2 males and 4 females, combined with broncho-pneumonia in one; congestion of blood in the brain in 3 males and 3 females; apoplexy of the spinal cord in 1 male; myelitis in 1 male and in 1 female; tumour in the brain in one male; pulmonary apoplexy in 1 male; broncho-pneumonia in 1 male and pneumonia in 2 females; typhoid pneumonia in 1 female; pleuro-pneumonia and gangrene of lung in 1 male; pulmonary

phthisis in 4 males (combined with pneumonia in 3 of them) and in 10 females; enteritis in 1 male; sudden deaths in fits, asphyxia in 2 males and in 2 females.

From 40 to 50 years, in 13 males and 14 females:—meningitis combined with pneumonia in 1 male, and in 3 females with congestion of lungs in one and myelitis in another; congestion of cerebral vessels in 1 male and bronchitis, and of 2 females, with pneumonia in one; cerebral softening in 2 males, with tubercles in the brain in one; tumour in the brain, apoplexy, and pleuro-pneumonia in 1 female; myelitis in 2 males, with blood in spinal canal in one and pleuro-pneumonia and gangrene of the lung in the other; congestion of blood in lungs in 2 males; pleuritis and gangrene of lung in 1 male; pleuro-pneumonia in two males, in one with atrophy of the brain and in one with cerebral congestion; pneumonia in 1 male and 4 females, with congestion of blood in cerebral vessels in one; tubercular pneumonia in 1 female; pulmonary phthisis in 2 females; general dropsy in 1 male; hydrothorax in one female.

From 50 to 60 years, in 9 males and 7 females:—meningitis and an unusual quantity of fluid in the cerebral ventricles in 1 male and 1 female; cerebral apoplexy in 2 males, with enlarged heart in one and hydrothorax in the other, and in 2 females, combined with gangrene of the cerebellum in one and cerebral atrophy in the other; cerebritis in 1 male and pneumonia; cerebro-spinal softening in 1 female; tumour in the brain in 1 female; broncho-pneumonia in 1 male and Bright's disease; pneumonia in 2 males; pulmonary phthisis in 1 female; hydrothorax in 1 male and enlarged heart; lumbar abscess in 1 female; asphyxia, sudden death, in 1 male.

Upwards of 60 years, in 13 males and 4 females:—meningitis in 4 males, combined with pulmonary emphysema in 1, with cardiac disease in 1, with pneumonia in 1, and an ulcer in the stomach in 1; an unusual quantity of fluid in the cerebral ventricles in 1 male with hydrothorax, and in 1 female; cerebral softening in 1 male and pneumonia; cerebritis in 1 male with bronchitis, and in 1 female; paralysis in 2 males, with gangrene of lung in one; tumour in brain in 1 male and Bright's disease; broncho-pneumonia in 1 male and bronchitis and emphysema in 1 female; pleuritis in 1 male; Bright's disease and fatty heart in 1 female; erysipelas in 1 male.

In epileptics the average height and weight of the body, average measurements of the skull, and the weight of the internal organs at different periods of life in males and females, were as follows:—

Age	Sex	Body		Measurement of head			Cerebral Organs					Thoracic Organs			Abdominal Organs								
		Height	Weight	Circumference	Antero-posterior	Transverse	Cerebrum		Cerebellum	Pons and Medulla	Encephalon	Spinal Cord	Right Lung	Left Lung	Heart	Stomach	Liver	Spleen	Pancreas	Right Kidney	Left Kidney	Renal Capsules	Uterus
							Right Hemisphere	Left Hemisphere															
20 to 40 years	M.	ft. in. 5 7	lbs. oz. 115 0	in. 22.1	in. 13	in. 12.2	oz. 21.4	oz. 21.6	oz. 5.1	oz. 1	oz. 49.1	oz. 1.1	oz. 25	oz. 22	oz. 9.3	oz. 5.4	oz. 50	oz. 5.4	oz. 3.2	oz. 4.4	oz. 5	oz. .7	oz. —
	F.	5 0	86 0	21.7	12.8	12.2	19	19.3	4.6	1	43.9	1.1	21	18	7.8	5	44	4.3	3	4	4.2	.7	1.6
40 to 60	M.	5 6	112 0	22.2	13	12.3	20	20.4	5.1	1.1	46.6	1.1	25	21	11	6	49.5	5.2	3.5	4.7	5	.8	—
	F.	5 1	82 4	21.5	12.9	12	18.3	18.6	4.8	1	42.7	1.1	21	20	9.6	5.3	45	4	2.7	4	4.2	.8	1.9
Upwards of 60	M.	5 6	116	22.2	12.8	11.9	19.6	19.2	4.8	1	44.6	1.1	28	22	11.6	5.4	52	5.3	3	4.6	4.9	.8	—
	F.	5 2	95 12	20.8	11.9	11	17.4	17.6	4.5	1	40.5	1.1	18	15	10.6	5.3	45	3	3	3.4	3.7	.8	1.9

The total average weights at all ages in Epileptics, compared with those in all cases examined in the Somerset County Lunatic Asylum:—

Epilep.	M.	5 6	114	22.1	12.9	12.1	20.3	20.4	5	1	46.8	1.1	26	22	10.6	5.6	50.5	5.3	3.2	4.6	4.9	.8	—
Asym.	M.	5 6	104 5	22.2	13.2	13.2	20	20.2	5.2	1	46.6	1.1	25.6	22.3	10.7	5.7	50.5	4.5	3.5	4.8	5	.8	—
Epilep.	F.	5 2	88	21.3	12.5	11.7	18.2	18.5	4.6	1	44.7	1.1	20	18	9.3	5.2	44.7	3.8	2.9	3.8	4	.8	1.8
Asym.	F.	5 1	81 3	21.3	12.8	12.6	18.4	18.6	4.9	.9	42.9	.9	18	16.3	8.1	5	42.8	4.3	2.9	4.9	4	.7	1.6

The post-mortem appearances in these epileptics were, in the *head*, in 8 males and 1 female under 20 years, were adhesions of the dura mater and opacity of the arachnoid in 4; congestion of blood in cerebral vessels in 1; hypertrophy of brain in 1; about 2 lbs. of blood effused in brain and spinal cord in 1; brain unusually firm and small in 2; in the female congestion of blood in cerebral membranes. In the female the dura mater adherent and congestion of blood in the cerebral vessels.

Spinal cord—white specks of bone on arachnoid in 1; the membranes adherent in 1; partial softening of cord in 2.

Chest—thymus present ($\frac{3}{4}$ oz.) in 1, and adherent to pericardium in 1. Pulmonary tubercles in 1; pneumonia in 1; bronchial glands enlarged in 1.

Abdomen—ulcers in ileum in 1.

From 20 to 30 years, in 31 males and 12 females, the scalp was infiltrated with blood in one female; the skull was unusually thick in 2 males and 2 females, the diploe absent in one; skull unusually thin in 1 female; the "crista galli" and other bony points very prominent in 1 female; dura mater preternaturally adherent in 6 males and 3 females, and opacity of the arachnoid in 3 males; pia mater adherent in 1 male; much fluid in the cerebral ventricles in 4 males and in 3 females; congestion of blood in the cerebral vessels in 9 males and 2 females; blood effused on cerebral surface in 2 males and 2 females; lymph on base of brain in 1 male; brain unusually firm in 4 males, pale in 2 males and 1 female; soft in 3 males; extreme atrophy of left hemisphere, only 8 oz., in 1 male, and inequalities of weight of 2 oz. in hemispheres in 1 female.

Spinal cord—blood in spinal canal in 3 males and on the surface of cord in 1 female; congested in 1 male; lymph on cord in 1 male; cord soft in parts in 6 males and 4 females; unusually firm in 1 female.

Chest—old pleuritic adhesions in 10 males and 2 females; recent effusion of lymph in 1 female; congestion of blood in 2 males and 3 females; pulmonary apoplexy in 1 male; bronchitis in 3 males; pneumonia in 5 males and 2 females; hydrothorax in 1 male; pulmonary tubercles and tubercular cavities in 8 males and 2 females; hearts small in 6 males and 4 females; large in 3 males; and from one to two ounces above the average weight in 6 males and 4 females.

Abdomen—old peritoneal adhesions in 3 males; fatty omentum in 1 male; worms in intestines in 2 males; scrofulous tubercles on liver in 1 male, and on peritoneum in 1 female; stomach elongated in 1 female; enteritis and ulcers in ileum in 4 males and 1 female; mesenteric glands enlarged in 1 female.

From 30 to 40 years, in 20 males and 23 females :—*Head*—the dura mater adherent in 1 male and 4 females ; bony spiculæ on falx in 1 female ; opacity of the arachnoid in 1 female ; the cerebral vessels congested with blood in 6 males and 8 females ; an unusual quantity of fluid in the cerebral ventricles in 4 males and 4 females ; the cerebral hemispheres unequal, the left being 1 oz. heaviest in 1 female ; the brain large in 6 males and 6 females, and unusually firm in 3 males.

Spinal cord—blood in spinal canal in 4 males, and fluid in canal in 1 female ; the cauda partly softened in 4 males and 3 females ; softened throughout in 1 male.

Chest—old pleuritic adhesions in 6 males and 5 females ; recent lymph in 2 males and 1 female ; pulmonary congestion of blood in 8 males and 7 females ; pulmonary tubercles in 3 males and 4 females ; and tuberculous cavities in 2 males and 4 females ; the heart large in 4 males and 1 female, and small in 3 males and 6 females.

Abdomen—enteritis and ulcers in ileum and colon in 3 males and 7 females ; entozoa in duodenum in 1 female ; tubercles on uterus in one ; cancerous lymphatic glands in 1 male ; stomach soft in 1 female ; fatty liver in 1 male and 1 female ; spleen enlarged in 1 female ; nephritis in 1 male ; horse-shoe kidney in 1 male.

From 40 to 50 years, in 13 males and 14 females :—the skull was unusually thick in 1 male ; projecting points in temporal fossa in 1 male ; bulbous protuberance in place of crista galli in 1 female ; matter in sphenoidal sinus in 1 female ; dura mater adherent in 3 males and 5 females ; opacity of the arachnoid in 1 male and 1 female ; cartilaginous specks on arachnoid in 1 female ; blood effused in base of skull in 1 male ; much fluid in the cerebral ventricles in 3 females ; cysts in 1 female ; the brain unusually large in 4 males, and pale in 1, also in 3 females ; the brain small in 3 males and 4 females.

Spinal cord—blood in canal in 1 male ; much fluid in the canal in 1 male ; the cord partly softened in 5 males and in 3 females.

Chest—old pleuritic adhesions in 1 male and in 1 female ; the pleura tuberculous in 1 male ; pulmonary tubercles in 3 females, combined with pneumonia in 1 of them ; fluid in the chest in 1 male and 1 female ; pulmonary congestion in 5 males and 3 females ; bronchitis in 1 male and 1 female ; pleuro-pneumonia in 4 males, and gangrene in 1 ; pneumonia in 6 females.

Heart—enlarged above the average in 4 males and 1 female, and small in 3 males and 3 females.

Abdomen—ascites in 1 male ; tubercular peritoneum in

male; fatty omentum in 1 male; enteritis in 3 males; ulcer in colon in 1 male and 1 female; the stomach unusually large in 2 males and 2 females; the stomach contracted and small in 2 females; the liver enlarged in 2 males; containing hydatid cysts in 1 female, and waxy in 1 male; the spleen unusually soft in 2 males, enlarged in 2 females; the pancreas large in 2 males; right kidney enlarged in 3 males and 1 female, and small in 2 males and 2 females; granular in 1; blood in renal capsules in 1 male.

From 50 to 60 years, in 9 males and 7 females:—effused blood beneath the scalp in 1 male; the dura mater adherent in 2 males and in 4 females; the arachnoid opaque and thickened in 1 male and in 1 female; blood effused on the arachnoid in 1 female; congestion of blood in the cerebral vessels in 2 males; about 2 oz. of blood on the cerebrum in 1 male; an unusually large quantity of fluid in the cerebral ventricles in 2 males and in 2 females, and cerebral softening in one of them; the brain unusually firm in 1 male; small cavities in centrum ovale in 1 female; fungoid tumour in 1 female; the cerebral hemispheres unequal in 2 females; a difference in weight of 2 oz. in one in the right, and the other in the left hemisphere; spinal cord partially softened in 3 males and in 1 female.

Chest—old pleuritic adhesions in 2 males and in 3 females; pulmonary congestion of blood in 3 males and in 1 female; hydrothorax in 1 male; bronchitis in 1 male; tuberculous cavities in 1 female; pneumonia in 3 males and 3 females.

Heart—fluid in the pericardium in 1 male; the heart greatly enlarged, 24 oz. in 1 male, and above the average weight in 3 females; the heart unusually small in 2 males and 2 females.

Abdomen—omentum fatty in 1 male; an abscess beneath the ensiform cartilage in 1 female; the peritoneum thickened in 1 female; granular kidneys in 1 male.

60 years and upwards, in 13 males and 4 females:—*Head*—cerebral membranes adherent in 5 males and 1 female; opacity of the arachnoid in 5 males and 1 female; the vessels and sinuses engorged with blood in 2 males; much fluid in the membranes and ventricles in 5 males and 1 female; softening and small cavities in corpus striatum in 1 male; a tumour in right hemisphere and amaurosis in 1 male; apoplectic clot in 1 male; a rusty deposit and cavity in 1 male and 1 female; the brain tough in 1 male, soft in 1 female, and small in 1 female.

The spinal arachnoid adherent in 1 male; the cord unusually pale in 1 male, and soft in 1 female.

Chest—old pleuritic adhesions in 4 males and 1 female;

hydrothorax in 1 male; pulmonary congestion in 2 males; bronchitis in 3 males; emphysema in 3 males and 1 female; tubercles in 1 female; broncho-pneumonia in 1 male and 1 female; pneumonia in 1 male; heart enlarged in 4 males and 2 females; the valves thickened in 2 males; clots in aorta in 1 male.

Abdomen—ulcer at pylorus in 1 male; stomach enlarged in 1 female; liver enlarged in 3 males, and softened in one of them; spleen softened in 3 males, and enlarged in 1; spleen soft in 3 males and large in 1; kidneys granular in 1 male; small and pale in 1 female.

From a summary of these 155 cases of epilepsy, diseases of the cerebro-spinal organs were found in 52·3 per cent., and in largest proportions in the youngest and oldest; diseases of the pulmonary organs were most prevalent at middle-age, amounting in the whole to 34½ per cent.; diseases of the abdominal organs in the proportion of nearly 13 per cent.

Epilepsy, if combined with insanity, is considered incurable, and the treatment of it, in a great measure, empirical; unless, perhaps, when the affection is symptomatic of disease of the circulating, digestive, or generative organs. A great variety of remedies from all the kingdoms of nature have been recommended, and many of them have long fallen into disuse. Attention to diet and regimen is of importance. In some instances, especially in young persons, the bromide of potassium has been administered with relief; and in other instances has had the effect of keeping the fits in abeyance, and sometimes of diminishing their frequency and severity. Aperients have also been found to alleviate the severity of the fits. Counter irritation to the nape of the neck by moxa, or by the red-hot iron, has been tried, as recommended by Brown-Séquard, and like other forms of treatment may have at first mitigated the disorder, but the fits have returned again, and often with renewed severity. Dr. Marshall Hall recommended a severe operation, tracheotomy, but it has not been practised to any extent, and has not succeeded when tried. Pressure on the carotid was also tried without relief. Dr. Routh, at a recent meeting of the Medical Society, recommended a trial of the nitrate of amyle.

In the treatment of epilepsy, in the paroxysms, all ligatures and cinctures should be at once removed, the patient should be placed on a bed in an airy apartment, with the head and shoulders raised, and a cork or wedge-shaped piece of soft wood introduced between the teeth, and the struggles should be gently restrained, to prevent the patient from injury from his or her own violence. When the injury is preceded by the "aura

epileptica," a tight band should be placed just above the part where the sensation is experienced, as this has been known to prevent the attack. In first attacks in plethoric and sanguineous temperaments, blood-letting, cold affusion on the head, and purgatives, particularly turpentine in combination, have been beneficial. The careful regulation of the diet is of importance, which should be light and easy of digestion, and also nutritious.

The endless complications which may accompany epilepsy must be regarded, and render the treatment most varied. The imagination has, especially in females, much influence in many forms of epilepsy. In many cases the moral treatment is as important as the physical. Varied occupation is of great service as a means of abstracting the mind from the disease; sudden changes of remedies have rendered the attacks less frequent. Except in epilepsy brought on by fits of drunkenness, which generally recover when total abstinence is enforced, as does "delirium tremens," the opinion that recoveries from epilepsy are for the most part only temporary, and that even after many years' cessation the fits will recur, is borne out by cases here recorded; as is also that which holds that epilepsy when combined with insanity, may almost be regarded as hopeless. When combined with hysteria, and in puerperal cases, relief has been afforded, and also in a few of the milder cases, when between the paroxysms the mind has been unaffected. Such cases occurring amongst the poor are sent, perhaps unavoidably, to the asylum, the most improper place for them with a view to recovery, as the associations in it are most likely to confirm their malady.

The treatment employed has been regulated by the symptoms in each individual, and these have arrived at the different periods of life. In the youngest, i.e. those under 20 years, counter irritants, as valerianite of zinc, artemisia vulgaris, and also stimulants and tonics were employed, also treatment for phthisis and diarrhœa. In those from 20 to 30, in addition to these, bloodletting and purgatives, tincture of sumbul, digitalis and codliver oil. Cases of pneumonia and gangrene were also treated; from 30 to 40, blisters, expectorants, sedatives, antispasmodics; from 40 to 60, general treatment, setons, sumbul, mugwort, aperients, stimulants, anodynes; also cases were treated for phthisis, bronchitis, pneumonia, diarrhœa, erysipelas, carbuncle, burn, and gangrene of finger; from 60 and upwards, in addition to the general treatment, stimulants, counter irritation, blisters; cases of influenza, bronchitis, phthisis, dropsy, diarrhœa, and abscesses were treated.

In England and Wales, in a period extending over six months

the deaths from epilepsy were very nearly double those from insanity, as given in a table in Copland, viz., from insanity 147 males, 138 females; from epilepsy 278 males, 292 females.

CONGENITAL IDIOCY, AND CONGENITAL IMBECILITY, are classed together. Congenital idiots are persons whose intellectual faculties have never been developed. In infancy they have large or ill-formed heads, are puny, often squint, cannot walk until late, or articulate until six or eight years of age. Their features are repulsive, they droivel from their mouths, their organs of sense are imperfect, both of taste and smell, and they are often deaf and dumb. Their bodies and limbs are ill-formed, they are commonly rachitic or scrofulous or paralytic, and many, about one-half, are subject to epileptic fits. Memory is strong in some, in others it is weak; they are generally timorous, inconstant, and often irascible. Many are prone to lying and stealing, and they often sink into melancholia and are given to masturbation; some evince particular talents, as for music. They commonly present much of the character of children. There are many degrees of imbecility; but as the original defect may present every grade from the slightest to complete idiocy, it is difficult to draw any line of demarcation between soundness or unsoundness of mind. The examples chiefly found in lunatic asylums are persons labouring under this weakness in an extreme degree. It is only when the idiots are violent and dangerous or otherwise troublesome, or of filthy habits, that they are sent to the asylum.

There were 170 idiots, chiefly living with their friends, periodically visited as paupers, by the parochial medical officers in the county of Somerset, as directed by the Lunacy Asylum Act, 1853. These visits must be paid quarterly, and a return made, with the list of the names and a certificate that they are properly cared for; or if the medical officer thinks otherwise, he must specify those which ought in his opinion to be sent to an asylum.

In the Appendix to the Report of the Commissioners in Lunacy for 1847 the number of idiots exceeded the lunatics in the county by 36. In those returns but two classes are specified, namely, lunatics and idiots; chronic demented cases being generally included with the latter. In like manner Dr. Duglison in his statistics of insanity in the United States,* represents that the idiots slightly exceed the insane, one idiot to 1469, and one insane person to 1485 of the general population. Insanity owing to intemperance was more common among the foreign, white, and free population than amongst the slaves.

* *North American Med. Chir. Review*, July 1860.

There is a district in the county of Somerset, including the parishes of Chiselborough, Stoke-under-Hamden and Barrington, where idiocy manifests that endemic character called cretinism, which is so well known in Switzerland. In some families of the district there are several cretins of both sexes in whom the characteristic bodily deformities were present. Bronchocele, or, as it is termed in the locality, "the thick neck," was common among females reared in this neighbourhood, the patients presenting no appearance of weakened or impaired faculties. There is no necessary connection between bronchocele and cretinism beyond that of their common birth-place, and it is somewhat remarkable that, although we had several patients admitted into the asylum with bronchocele, we had no case of cretinism. Insanity occurring with bronchocele is quite fortuitous, and it is common enough for such patients to recover their reason, and leave the asylum without any alteration in the bronchocele, which may even be larger than before. The removal of cretins in infancy to an open, elevated, mountainous situation, to obtain purer air and stronger light, has been attended with beneficial results. It is also beneficial in these cases to pay attention to personal cleanliness, and oblige them to exert themselves in some useful employment.

A visit to the idiot asylum at Earlswood, in Surrey, is sufficient to show the wonderful results that may be obtained by proper care and training of imbecile boys and girls. Besides school-teaching and out-of-door occupations, the boys are taught tailoring, shoemaking, and mat-making, and the girls also are taught industrial work.

Ten years ago, in the five counties which form the southwestern division, there were in the union workhouses 534 male and 624 female idiots. From these it was suggested that the younger ones should be separated, and that the counties should unite and form an establishment for their care and education.

Of the first three thousand admissions to the County Somerset Asylum, 3·3 per cent. were idiots merely, and in nearly an equal number idiocy was complicated with epilepsy. The cases of epilepsy altogether amounted to 9·6 per cent. There were 86 of this class, including idiots and imbeciles, admitted to the County Somerset Lunatic Asylum; 52 were males and 34 females. Of these, 4 males and 4 females were discharged, relieved; 6 males and 5 females not improved; 12 males and 11 females died; and 30 males and 14 females remained in the asylum at the end of 20 $\frac{1}{4}$ years. The 4 males relieved were, to a certain extent, educated. All could read, and 2 could

write imperfectly. Only one of the 4 females was at all educated; the habits of all were much improved before they were discharged. Of the 6 males discharged, not improved, 3 were idiots, 2 dumb, and 1 deaf and dumb; two were removed to other asylums not being county patients, and one was taken charge of by his mother; the three others, imbeciles, one of them blind, were removed to workhouses, of the 5 females, 4 were removed to workhouses, and one with pulmonary phthisis was taken home by her mother.

Of the 12 males and 11 females who died, 3 males and 1 female were under 20 years of age on admission; 4 males and 3 females from 20 to 30; 1 male from 30 to 40; 4 females from 40 to 50; 2 males and 2 females from 50 to 60; and 2 males and 1 female over 60. Three males and three females were imbeciles, and the remainder of each sex idiots, and usually of filthy habits. Two males were nearly blind, one entirely of one eye, and the optic nerve of that eye was atrophied; two males and one female were dumb, and 1 female was a cripple, the spinal cord was soft and enlarged, and weighed $1\frac{1}{4}$ oz. Five males and four females had small brains, varying in the males from $33\frac{1}{2}$ to $43\frac{1}{4}$ ounces, and in the females from $19\frac{1}{2}$, an exceedingly small brain (arrest of development), to $38\frac{1}{4}$ ounces. In three males and four females the encephalon was about the average weight, and in four males considerably, and two females slightly, above it, varying in the males from 47 to 53 ounces, and in the females from $42\frac{3}{4}$ to 43 ounces.

The causes of death were pulmonary phthisis in 5 males and 6 females, generally combined with ulceration in the ileum or colon, and sometimes in both, attended in the last stage with diarrhœa. There was pneumonia and ulceration of intestines also in 3 males, and broncho-pneumonia in 1 female; scrofula and curvature of spine in 1 male; skull thick, and unequal cerebral hemispheres, in 1 male; arachnitis and distended cerebral ventricles in 1 female; cerebral apoplexy in 1 male; paralysis in 1 male; softened brain and Bright's kidneys in 1 female; general dropsy and pericarditis in 1 female; erysipelas and gangrene of arm in 1 female.

Four males relieved.

J. M. (121), aged 66; congenital imbecility; an agricultural labourer; can read and write indifferently; has latterly been violent and destructive.; usually kindly and good-tempered; was industrious in the asylum; and, after six and half years, was removed to the union workhouse.

E. P. (125), aged 50; imbecility; a thatcher; can read and write; noisy, and occasionally violent; transferred from a licensed house;

became quiet and harmless; was fifteen years in asylum, and was removed to the wards established for chronic cases in the Bath Workhouse.

H. C. (196), aged 26; imbecility; can read; habits destructive and filthy; transferred from a licensed house; sent as a criminal for felony; eighteen years in the asylum; discharged in good health, and of cleanly habits, to chronic ward of Bath Workhouse.

J. S. (239), aged 34; imbecility; can read; hereditary predisposition; sister died insane; obstinate, irritable, and dangerous to others; quiet and industrious in the asylum; his health improved; he remained two and half years, and was then discharged to live with the farmer who had previously been his employer.

Four females relieved.

C. P. (559), aged 27; imbecile; can read; hereditary, predisposition on mother's side; a violent refractory pauper; recently discharged from prison, where she was sent for destruction of property; quiet and orderly in the asylum; she worked in the laundry, and, after sixteen months, she was discharged to the workhouse.

H. M. (648), aged 36; imbecile; youngest of two sisters; parents dead; violent towards some of the inmates of the workhouse; eight years in the asylum; industrious; discharged to workhouse.

F. A. (671), aged $5\frac{1}{2}$ years; imbecile; had convulsions when eighteen months old; passionate; second of three sisters; parents alive; became quiet; two and half years in the asylum; removed to an institution for idiots.

E. B. (1.255), aged 18; imbecile; no education; cleanly habits; occasionally violent; fourteen months in the asylum, when she became quiet and harmless; discharged, relieved, to the chronic ward of Bath Workhouse.

Six males discharged, not improved.

M. B. (29), aged 22; congenital imbecility; mischievous; can read; in good health; cheerful; idle; one of a large family, none of whom are afflicted; after fifteen years in the asylum was removed to the union workhouse.

J. F. (69), aged 33; congenital imbecility; removed from a licensed house; reported as occasionally dangerous; no education; quiet; works out of doors; after nine years in the asylum was removed to the workhouse.

W. L. (185), aged 22; imbecility; blind from birth; general health, good; quiet; able to dress himself and make his way about; nearly six years in asylum; discharged to workhouse.

G. V. (505), aged 16; dumb idiot; mischievous; hasty temper; filthy habits; suffered from worms, "lumbriçi," for which he was given oil of turpentine, with benefit; three months in asylum; discharged at request of relatives.

C. W. P. (856), aged 12; idiot; deaf and dumb; from St. James's, Westminster; after nine months transferred to Colney-Hatch Asylum, Middlesex.

J. R. (958), aged 13; dumb idiot; five years in an asylum; transferred from Colney-Hatch, and subsequently removed, with others, to the new Glamorgan Asylum.

J. C. (1,168), aged 16; idiocy; five months after admission discharged to the care of his mother, at her request.

Five females discharged, not improved.

M. P. (82), aged 32; congenital imbecility; could never learn her letters, or tell the hour by the clock; very obstinate and irritable; youngest of three; her brother and sister intelligent; transferred from a licensed house; seven years in the asylum; quiet, and harmless; discharged to the union workhouse.

F. J. (292), aged 32; imbecile; no education; occasionally violent; two years in asylum; discharged, by request, to the workhouse.

M. F. (597), aged 22; idiot; no education; parents living; fourth of five children; violent; filthy habits; enjoyed a bath; nearly eight years in the asylum; became quiet and harmless; discharged to workhouse.

C. B. (600), aged 30; idiocy; no education; parents living; conduct outrageous; second of four children; mother states that she had a fright previous to her birth; filthy habits; bad health; removed, with others, to the chronic ward in Bath Workhouse.

M. F. (1,113), aged 17; imbecile; mother alive; father died nine weeks before her admission; the youngest of two sisters; violent; ten months in the asylum; has pulmonary phthisis; her mother took charge of her.

Twelve males, died.

T. L. (85), aged 50; congenital idiot; irritable; filthy habits; no education; was in a licensed house for the insane, previous to which he was kept by his brother for eight years in a strait waistcoat, fastened by a chain and ring round his leg to a staple in the floor; his mother's mother was in an asylum, and recovered; motion, awkward and unsteady; blind of left eye, from lime having been thrown in his face twenty-two years ago by a man who was subsequently hanged, at Ilchester, for violence to a female. He died of pulmonary phthisis nearly two years after his admission to the asylum. *Head*: circumference, 20 inches; antero-posterior measurement, 11 inches; and transverse, 13 inches; more fluid than natural in the lateral ventricles; the left optic nerve wasted, not more than half the size of the right; the brain appeared to be natural; encephalon, 45 oz. *Chest*: old pleuritic adhesions; a large cavity in apex of right lung, and tubercles in various stages towards softening in both lungs; heart, small, 5 oz. *Abdomen*: horse-shoe kidney—they were united, weight 5 oz.; other organs very small; body emaciated, weighed only 54 lbs.; short stature.

G. F. (137), aged 16; a slaving idiot, scarcely able to articulate; the parents in good health; an only child; of filthy habits; emaciated, and in a very feeble state; died fourteen weeks after admission. *Head*: brain natural, except that there was a little more fluid than usual in the lateral ventricles; weight of the encephalon, 41½ oz.; pleuro-

pneumonia of the right lung, also ulceration of the lower portion of colon and rectum; liver large, 52 oz.

J. S. (256), aged 27; idiocy; epileptic during childhood; unable to articulate distinctly; passionate; transferred from a licensed house; filthy habits; totters in walking; appetite ravenous; this deterioration came on three years after his admission; subsequently diarrhœa occurred, and he died in four years and nine months from general paralysis; body thin; weight, 86 lbs.; length, 5 ft. 7 in. *Head*: circumference, 21 in.; antero-posterior, 13 in., and transverse measurements, $13\frac{1}{4}$ in.; the dura mater strongly adherent to the skull; the brain appeared natural, rather small; each cerebral hemisphere, 17; cerebellum, $4\frac{1}{2}$; pons and medulla, $\frac{3}{4}$; encephalon, $39\frac{1}{4}$ oz.; lower part of spinal cord softened for $2\frac{1}{2}$ in.; pleuro-pneumonia left lung; enteritis also.

W. C. (313), aged 66; imbecility; can read; quiet, but given to wandering from home; suffering from asthma; in bad health; he died fourteen months after admission from cerebral apoplexy, asthma, and enlargement of the heart. *Head*: circumference, $22\frac{1}{4}$ inches; antero-posterior and transverse measurements, each $14\frac{1}{4}$ inches; a large quantity of blood; about 6 oz. escaped when the skull-cap was removed; the brain large, $50\frac{1}{4}$ oz.; spinal cord natural; emphysema of the lungs; heart, $16\frac{3}{4}$ oz.; abdominal organs healthy; body, 149 lbs.; length, 5 ft. 8 in.

J. P. (451), aged 25; idiocy; dumb; dangerous to himself; very filthy; died four months after admission from pulmonary phthisis and pneumonia; the body emaciated; weight, 75 lbs.; length, 5 ft. 8 in. *Head*: circumference, $22\frac{1}{2}$ in.; antero-posterior, 13 in.; transverse, 14 in.; cerebral vessels congested with blood; encephalon, 47 oz.; spinal cord natural; grey matter distinct, and seemed more in proportion to the white than in an older subject examined at the same time. *Chest*: tubercles and small cavities in the apex of right lung; tubercles also in the left; heart small, $7\frac{1}{4}$ oz.; the mucous membrane of descending colon was ulcerated.

J. S. (509), aged 12; dumb idiot; eldest of five children; parents alive; large head; filthy habits; ate dirt or grass; very thin; diarrhœa at the last. He was thirteen and half years in the asylum. *Head*: circumference, 22 in.; antero-posterior, 13 in., and transverse measurements, $11\frac{1}{2}$ in.; the brain unusually large; each hemisphere, $23\frac{1}{4}$ oz.; cerebellum, $5\frac{1}{2}$ oz.; and pons and medulla, 1 oz.; encephalon, 53 oz.; the spinal cord also large, $1\frac{3}{4}$ oz.; pneumonia right lung; mucous membrane of descending colon dark coloured.

J. P. (617), aged 64; idiot; became violent four weeks before his admission; in bad health; had ulcers on both legs; nearly blind; died eight years after admission; weight of body, 112 lbs.; length, 5 ft. 6 in. *Head*: circumference, 22 in.; antero-posterior, 11 in.; and transverse measurements, 10 in.; the skull unusually thick; the cerebral veins congested with blood; the brain small; cerebral hemispheres unequal; right, $14\frac{1}{2}$ oz.; left, 13 oz.; encephalon, $33\frac{1}{2}$ oz.; the grey matter darker than natural; spinal cord natural, 1 oz. *Chest*: old pleuritic adhesions; organs natural. *Abdomen*: liver large, 63 oz.; spleen also large, 10 oz.

H. D. (692), aged 24; congenital imbecility; a criminal, sent to prison for stealing a dog value 5*l.*; occupation, a farm servant; can read a little; was upwards of ten years in the asylum, and died, after four days' illness, from an ulcer in the stomach, and hæmorrhage from an artery from the celiac axis. The measurements of the head were—circumference, 21 in.; antero-posterior, 12 in., and transverse, 10½ in.; the brain and spinal cord both unusually pale; no other change; weight of encephalon, 45½ oz.; old adhesions of heart and pericardium; weight of the body, 144 lbs.; length, 5 ft. 5 in.

H. T. (713), aged 27; congenital idiocy; parents living; an only child; father imbecile; of filthy habits; occasionally violent, and dangerous to children; had an ear for music, and could sing; he died of pulmonary phthisis fifteen months after his admission; tuberculous cavities in the left lung; heart small, 7 oz. *Head*: ordinary size; encephalon, 45¼ oz.; the dura mater adherent to the skull; brain firm; about ¾ oz. fluid in the lateral ventricles; the white portion of spinal cord softened; weight of the body, 64 lbs.; length, 5 ft. 7 in.

J. M. (1,032), aged 36; idiocy; dumb; paralysis; helpless, harmless; has been living with his mother who died recently; father also dead; the eldest of three children; died ten months after admission. A backward curvature of the spine; body emaciated, 62 lbs.; length, 4 ft. 9 in. *Head*: circumference, 19 inches; antero-posterior, 9½ inches; transverse, 10 inches; cerebral structure pale; convolutions not fully developed; right cerebral hemisphere one ounce heavier than the left; encephalon, 35 oz.; spinal cord soft; the organs like those of a young person not fully developed, except the kidneys which weighed 8¾ oz.

C. C. (1,048), aged 18; imbecile; injury to head at the age of 3; mother dead, father alive; nearly seven years in the asylum; destructive, and of filthy habits; emaciated; died of pulmonary phthisis. *Head* and brain natural; encephalon, 43¼ oz.; spinal cord rather soft; both lungs full of tubercles; heart small, 6¾ oz.; enteritis.

T. P. (1,127), aged 60; idiocy, idle, harmless; twenty months in the asylum; died of pulmonary phthisis. *Head*: natural; brain natural; encephalon, 48 oz.; spinal cord rather soft; old pleuritic adhesions; dark pulmonary tubercles in upper lobes of both lungs not softened; heart small, 8 oz.; weight of the body, 108 lbs.; length 5 ft. 7 ins.

Eleven females, died.

H. B. (36), aged 59; congenital imbecility; can read imperfectly; three years in a licensed house for pauper lunatics; six years in the asylum; died of pulmonary phthisis and ulceration of the intestines. *Head*: circumference, 21 inches; transverse and antero-posterior measurements, each 13 inches; more fluid than natural in the cerebral ventricles; the right hemisphere, 17 oz.; left, 17½ oz.; encephalon, 40¼ oz.; tubercles and cavities in lungs; heart small, 6 oz.

E. D. (222), aged 59; imbecility, hereditary on father's side; eldest of eight children, six males and two females; unable to read;

turbulent; idle and irritable; dangerous and destructive; in bad health, diarrhœa; she died a month after admission. Weight of body, 79 lbs.; length, 5 ft. *Head*: ventricles distended with fluid; fourth ventricle rough from crystals, rhombic cubes; encephalon, $41\frac{3}{4}$ oz.; fluid also in the spinal canal, and the membrane partially adherent. Heart enlarged, 14 oz.

E. B. (331), aged 63; idiocy; nearly three years in the asylum; filthy habits; refused food; had frequently to be fed by stomach tube; weight of the body, 94 lbs.; length, 5 ft. 1 in. *Head*: membranes unusually adherent; brain pale and rather soft; encephalon, $42\frac{3}{4}$ oz.; spinal cord natural; heart flabby, fatty degeneration; also in the kidneys; albuminuria; Bright's disease.

S. C. (379), aged 48; dumb idiot; violent, bites her arms; filthy habits; she died three months after admission; erysipelas; gangrene of left arm. *Head*: small skull, unusually thick; dura mater preternaturally adherent; brain natural, but small; encephalon, $34\frac{3}{4}$ oz. *Chest*: organs natural; *Abdomen*: stomach elongated and large; other organs natural.

M. A. G. (448), aged 24; imbecility; can read; lived with her parents; violent for six months previous to admission, two years before her death; scrofulous ulcers; pulmonary phthisis; body emaciated, 54 lbs.; length, 5 ft. *Head*: circumference, $19\frac{1}{2}$ inches; antero-posterior, 13 inches, and transverse measurements, $13\frac{1}{2}$ inches; the brain firm; veins congested; each hemisphere $17\frac{1}{2}$ oz.; encephalon, $40\frac{1}{2}$ oz. *Chest*: small tuberculous cavities in both lungs, some gangrenous; heart small, $6\frac{1}{2}$ oz. *Abdomen*: ulcers in ileum; mesenteric glands enlarged.

G. M. (491), aged 25; idiocy; removed from workhouse; reported violent and abusive; died three years and three months after admission, of pulmonary phthisis and diarrhœa; weight of body, 68 lbs.; length, 5 ft. *Head*: brain natural; encephalon, 43 oz.; spinal cord natural. *Chest*: old adhesions; tubercles and cavities in both lungs; heart, $6\frac{1}{2}$ oz. *Abdomen*: peritoneal adhesions; scrofulous deposit in right renal capsule; ulceration in ileum.

C. S. (815), aged 15; idiocy; hasty, violent, and destructive; youngest of several children; parents alive; insanity in her mother's family. Eight years and two months in the asylum; died of pulmonary phthisis. *Head*: unusually small; circumference 17; antero-posterior $9\frac{1}{2}$, transverse $5\frac{1}{2}$ inches. Cerebral structure appeared natural; each hemisphere $7\frac{1}{2}$; encephalon only $19\frac{1}{2}$ ounces. Tubercles and cavities in lungs; heart only 3 ounces. Ulceration in lower part ileum; all organs small. Weight of the body, 51 lbs.; length, 4 feet 5 inches.

M. R. (1,034), aged 40; idiocy; passionate, violent; refused food; filthy habits; nearly three years in the asylum; died of pulmonary phthisis. *Head*: circumference, 21 in.; antero-posterior, 11 in., and transverse measurement, 11 inches. Brain unusually pale; each cerebral hemisphere, $17\frac{1}{2}$; encephalon, 41; spinal cord, also pale, 1 ounce. *Chest*: dense pleuritic adhesions; tubercles and small cavities in both lungs; heart small, $6\frac{1}{4}$ oz.; ulceration in both ileum and colon.

E. W. (1,107), aged 48; stubborn; filthy habits; youngest of seven children, four males and three females; had to be fed; noisy; died

three months after admission, of influenza and bronchio-pneumonia. *Head*: circumference, $20\frac{1}{2}$; antero-posterior, $11\frac{1}{2}$; transverse measurement, 11 inches. Skull thin; dura mater adherent; encephalon small, $33\frac{1}{2}$ oz.; spinal cord, soft at centre, $1\frac{1}{4}$ oz. *Chest*: old pleuritic adhesions on both sides; right lung in first stage pneumonia, 23 oz., left, 17 oz.; redness of bronchial lining membrane of both lungs.

L. C. (1,205), aged 26; idiocy; youngest of two; father alive, mother dead; has lived since for eight years with her married sister; filthy habits; "ophthalmia tarsi." Three years in the asylum; died of pericarditis and dropsy. *Head*: circumference $19\frac{3}{4}$ in.; antero-posterior, 11 inches, transverse, 10 inches. Brain small and pale; each cerebral hemisphere, 17; encephalon, $38\frac{1}{4}$. *Chest*: pleuritic adhesions; two pints of fluid by measure in the chest; a few tubercles in the lungs; heart and pericardium adherent by recent lymph, weight 12 oz. Abdomen distended with straw-coloured fluid; nutmeg liver, 53 oz; kidneys large, each 5 oz.; cortical structure pale. Body weighed 91 lbs.; length, 4 ft. 9 in.

A. D. (1,218), aged 43; idiocy; filthy and stubborn; no education; bad health; a cripple; died suddenly after dinner. Body weighed 58 lbs.; height, 4 ft. 10 in.; limbs contracted. *Head*: circumference, 21; antero-posterior, 12, transverse, 11 in. Brain appeared natural; each hemisphere, 18 oz.; encephalon, $41\frac{1}{2}$; spinal cord rather soft, $1\frac{1}{4}$ oz. *Chest*: miliary tubercles in both lungs; cavities in the right apex. *Abdominal organs* natural.

ART. VII.—INTEMPERANCE AND DIPSOMANIA AS RELATED TO INSANITY.

By EDWARD C. MANN, M.D.,

Medical Superintendent State Emigrant Insane Asylum, Ward's Island, New York.

Read before the meeting of the "American Association for the Cure of Inebriates," held at Hartford, Conn., Sept. 28, 1875.

IN accepting an invitation to read a paper before you to-day, I do so fully conscious that most of the gentlemen composing this Association have had far greater opportunities for studying this speciality than I have enjoyed. I shall therefore briefly present the subject to you as it has appeared to me during my connection with the asylum which I have the honour to represent. I think it impossible to estimate the complex influences that intemperance exerts upon the production of insanity, and different authorities differ very much in their opinion on this subject. All agree, however, that it is intimately connected with and is one of the main causes of insanity. Lord Shaftesbury, in his evidence before the Select Committee on Lunatics, in 1859, expressed his opinion that fifty per cent. of the cases admitted into English asylums are due to drink. This is a rather large estimate, but many superintendents of foreign asylums have estimated the admissions from intemperance at twenty-five per cent. or higher, including not only the proximate but remote cause of the disease. This percentage will be largely increased if we take into account the great number of cases in which the intemperance of parents causes the insanity or idiocy of their offspring. I have traced intemperance as a cause in almost every case of general paralysis that has fallen under my notice, and others have observed the same thing. M. Lunier estimates that fifty per cent. of all the idiots and imbeciles to be found in the large cities of Europe have had parents who were notorious drunkards. Out of 350 insane patients admitted during two years at Charenton, in Europe, insanity was attributed to drink in 102 instances. I think, from my examination of the statistics of all the insane asylums, both here and in Europe, that it is not too much to say that fully one-fourth of all the admissions are due, either proximately or remotely, to intemperance.

I pass now to the consideration of dipsomania as a form of physical disease—as insanity.

Dipsomania has been aptly defined as "an uncontrollable

and intermittent impulse to take alcoholic stimulants, or any other agent, as opium, or haschish, which causes intoxication—in short, a methomania.” We must distinguish between this and the physiological state in which the individual merely chooses to indulge in liquor to excess. The great question of importance is to distinguish the two states or conditions, when the result, intemperance, is the same. We must observe whether there are symptoms in our patient which can be referred to primary disease of the nervous system. We must examine for hereditary influences, which, when present, lead us, of course, to suspect disease. Early development of the appetite for stimulants points in the same direction. But the great diagnostic point attending the *disease* is the *irresistible impulse* by which the patient is impelled to gratify his morbid propensity, being, during the paroxysm, blind to all the higher emotions, and pursuing a course against which reason and conscience alike rebel. It is frequently seen that these paroxysms are preceded by considerable disturbance of the nervous system. The patient perspires and is sleepless, uneasy and prostrated, and so craves some stimulant.

Between the paroxysms he is different from a common drunkard in oftentimes disliking exceedingly all stimulants, and is then a useful member of society. Dipsomania has been described under three forms: acute, periodic, and chronic. The acute form is the rarest, occurring only after exhausting diseases or excessive venereal indulgence. The periodic form is much more frequent, and is observed in persons who have suffered injury to the head or spine, females during pregnancy and at the catamenial period, and also in men whose brains are overworked. This form is frequently hereditary, and consequently proportionately difficult of cure. These patients may abstain for weeks and months from all stimulants, and may, during this interval, positively dislike them. At last, however, the patient becomes uneasy, listless, and depressed; is not inclined to apply his mind; and, finally, begins to drink, and continues until intoxicated. It is an interesting and rather remarkable fact, that with this class of cases, as Charles Lamb, in his “Confessions of a Drunkard,” pertinently remarks, “to stop short of that measure which is sufficient to draw on torpor and sleep, the benumbing apoplectic sleep of the drunkard, is to have taken none at all. The pain of the self-denial is all one.” The patient continues this course for ten days, or perhaps a fortnight, and then bitterly regrets his fall. This often runs on, if not checked, into mania, and lapses into dementia. The last and most common is the chronic form; and I have always found this to be the most incurable form of

the disease, as the patients are incessantly under the irresistible desire for alcoholic stimulants. I think the latter class of cases require constant seclusion in an asylum if they wish to be free from intoxication, as a discharge or leave of absence is always followed by a repetition of the same acts. In a majority of cases of this nature we find hallucinations of sight and hearing, which oftentimes produce very painful moral impressions, and at times even great terror in the patient. Cases of delirium tremens are excluded in these remarks. These patients manifest confusion of thought, perversion of feelings, suicidal tendencies, tremors of the facial muscles and tongue, anæsthesia of the extremities at times, and very often paralytic symptoms, going on to general paralysis. The subject of hereditary metamorphosis of the diseases of the nervous system is of great importance in this connection. As a result of intemperance in the progenitors, we find transmitted to the offspring allied but different forms of neurosis: it may be dipsomania, epilepsy, chorea, or actual insanity, or a proclivity to crime. It is, at all events, an aptitude for some form or other of nervous disorder, the particular form being often determined by causes subsequent to birth. The law of hereditary transmission applies equally to the victims of dipsomania as well as to the other insane classes, and is to be studied, I think, in three divisions, according as it is manifested. First, in predisposition, or simple aptitude, the result of a defective organisation and a weakened or diseased nervous system, as a result of which the possessor is predisposed or has a tendency to seek for the relief obtained by alcoholic stimulants when labouring under physical or mental depression; second, in the latent state or germ of the disease; and third, in the actually developed disease. The first of these states, the predisposition or aptitude, being hereditary in a strong degree, is universally acknowledged to be the most difficult to eradicate, and requires the wisest sanitary conditions adapted to both mind and body. Most people doubt the existence of the second or latent state or germ of the disease, ignoring the law of progressive development, and such persons find it difficult to believe that dipsomania coming on in maturity, as a result of ill-health, mental shock, &c., may have originated in intemperance in the parent or grandparent. Yet this is a fact. One very important organic law, which should be universally understood in this connection, is, that morbid impulses and characteristics and traits may disappear in the second generation and break out with renewed intensity in the third, although a tendency or predisposition may be transmitted to the offspring, and, under good hygienic and other favourable circumstances, die out and

fail to be transmitted any further. I have remarked in my experience with the insane, whether the exciting cause be intemperance or something else, that the cases most unlikely to recover are those where the insane temperament or diathesis is clearly manifested, and where the predisposition to disease is inherited. Such patients, although they may have lucid intervals, rarely if ever entirely recover. I think the insane impulses to drink, which overcome all the efforts of the individual who inherits a tendency in this direction, present the same indications for treatment as do the suicidal and homicidal impulses, namely, seclusion from society and the necessary restraint in an asylum.

I do not agree with that class of persons who hold that under all circumstances the dipsomaniac is to be treated as an invalid, with the utmost gentleness and forbearance, and then, with the strangest perversity, turn round and tell you that inebriety is no excuse for criminal actions, and fine and imprison the unhappy man who has been driven into the debauch by an irresistible craving for drink, when properly he should be regarded as insane, and should be sent to an inebriate asylum for treatment and cure. Our laws at present fail lamentably in preventing intemperance, and this is due in a great measure to the false view in which this disease is held by the judiciary. The different forms of dipsomania correspond in their manifestations, and oftentimes in their causes, to other cases of mental disease, and cannot properly, I think, be separated from them as regards the fact of the disease. Dipsomania often appears as a result of the same causes that operate in the production of other types of mental disease, such as ill-health, severe mental shock, blows on the head and spine, and sunstroke.

We are dealing in both cases with abnormal cerebration; in the one case associated with mania, melancholia, dementia, and idiocy; and in the other, with a depraved alcoholic appetite—an irresistible impulse which the mind seems powerless to control: an insane impulse, just as surely as a homicidal or a suicidal impulse is an insane impulse. I think that when our cerebral pathology, which is as yet in its infancy, becomes more generally understood, it will be found equally applicable to this as to other forms of insanity. The terrible insane craving for alcoholic stimulants is often the result of a lowered vitality or abnormal organic development of the nervous system that has descended from generation to generation, gaining in intensity, until it manifests itself by the complete loss of self-control and active inebriety in children and grandchildren after they once taste intoxicating liquors and indulge in them. The blunted moral perception which so many inebriates

exhibit, and which renders them peculiarly liable to a relapse after they leave an asylum, is to be regarded in the same light, I think, as the perverted moral sense in moral insanity.

In every institution for the insane we find inmates who exhibit no obvious intellectual aberration or impairment, the *moral* faculties being deranged, while the *intellectual* faculties remain apparently in their normal condition. The manifestations of moral insanity may be a simple perversion of some sentiment or propensity, under certain exciting causes; and I think this exactly comprehends cases of dipsomania with loss of self-control and perversion of the moral sense. The person, of course, is aware that the act is wrong in both instances, but the control which the intellect exercises over the moral sense is overborne by the superior force derived from disease. I have been told many times, by both insane patients and dipsomaniacs, that the feeling on the one hand to commit some insane deed, and on the other to give way to alcoholic appetite, was contemplated in both instances with horror and disgust, and at first successfully resisted, until at last, having steadily increased in strength, it bore down all opposition. What can be a more powerful argument in favour of the disease theory of dipsomania?

Pathology of Inebriety.—The basis of our cerebral pathology is the fundamental principle that healthy mental function is dependent upon the proper nutrition, stimulation, and repose of the brain; and upon the processes of waste and reparation being regularly and properly maintained. We know that the cerebral cells are nourished by the proper and due supply of nutritive plasma from the blood, and that this is essential to healthy function; and, indeed, the ultimate condition of mind with which we are now acquainted consists in the due nutrition, growth, and renovation of the brain-cells. If now we take into the system an amount of alcohol that causes the blood-plasma to convey to the brain-cells a noxious and poisonous, in place of a nutritive substance, stimulating the cells so as to hasten the progress of decay and waste beyond the power of reparation and renovation, and impressing a pathological state on them, we must inevitably have resulting a change of healthy function, and a certain amount of disease induced. Owing to the abuse of alcohol, we have resulting a change in the chemical composition of the cerebral cells from the standard of health, which is the foundation of organic disease, as it prevents and interrupts healthy function. As a result of the overfilling of the cerebral vessels or hyperæmia of the brain from the long-continued use of alcohol, we have at first symptoms of irritation, due to increased excitability of

the nerve-filaments and ganglion-cells of the brain. The symptoms of exhaustion and depression occurring at a later stage are due to lost excitability of the nerve-filaments and ganglion-cells of the brain, owing to a want of the proper supply of arterial oxygenated blood to them. This is caused by the excessive cerebral hyperæmia, the escape of venous blood from the brain being obstructed; the result being that no new arterial blood can enter the capillaries. We may have apoplectiform or epileptiform attacks and paralysis occurring in the course of these cerebral hyperæmias, and they may be due either to obstructed escape of venous blood or to secondary œdema of the brain, in which transudation of serum takes place into the perivascular spaces and interstitial tissue of the brain, with consequent anæmia.

We know comparatively little yet respecting the physiology and pathology of the nervous system; and consequently comparatively little information has been gained regarding the morbid changes that take place in the brain and its appendages, as a result of the abuse of alcohol. Such knowledge in this direction as we do possess shows that analogous changes take place in chronic alcoholism and chronic insanity—namely, atrophy and induration of the brain, and thickening and infiltration of the membranes. The nerve-cells have also been found to be the seat of granular degeneration in some instances, and some histologists have claimed to have discovered fatty degeneration of the various brain elements. Respecting the latter changes, Dr. J. Batty Tuke, of Edinburgh, who is one of the most successful of modern investigators in the department of morbid cerebral histology, gives it as his opinion that the application of the various tests for oil will fail to detect the presence of the so-called “free oil-globules” in the substance of the convolution, which he considers to be but the scattered débris of granular cells. According to the great pathologist, Rokitsky, we find thickening and increase of volume of the pia mater and arachnoid, and permanent infiltration of the former and a varicose condition of its vessels, as a result of continued abuse of alcohol. As the state of the pia mater is unquestionably closely related to the higher functions of the brain, the latter must suffer more or less as the result of such an abnormal condition of the former. If there exist a permanently congested and thickened state of the pia mater, it is extremely probable that if it becomes suddenly turgid and hyperæmic as a result of severe emotional disturbances, we shall have, resulting from the increased pressure on the brain, coma, epileptiform and apoplectiform attacks, and other grave nervous symptoms. It is

fair to conclude that in the majority of cases the first changes that occur are repeated attacks of active cerebral congestion, followed by chronic cerebral congestion and chronic cerebral meningitis; and that, as the disease assumes a chronic form, the brain takes on a secondary change and becomes anæmic, atrophied, and indurated—a state allied to cirrhosis. In these cases of chronic meningitis, proceeding to atrophy and induration—of which I have seen quite a number—the prominent symptoms have been impairment of memory, dulness of intellect bordering on dementia, trembling of the limbs, tottering gait, hesitating, slurring speech, and other symptoms indicative of gradually progressing paralysis. In two cases of general paralysis due to drink, in which I made a post-mortem examination, paying careful attention to the state of the brain and spinal cord, I found in both instances thickening and opacity of the membranes, with adherence to each other and to the brain, showing the existence of chronic meningitis. The brain was in both cases anæmic and indurated, and in one case there was dilatation of the lateral ventricles with considerable effusion. The spinal cord was atrophied and indurated, and there was considerable fluid in the spinal canal in one of the cases, and also at the base of the brain. Upon hardening the spinal cord and making thin sections, and employing carmine staining, to demonstrate the structural relation of the cord more clearly, I found, upon microscopical examination, that there was atrophy and loss of the nerve-elements of the posterior columns, with a new formation of connective tissue. In making autopsies, where the cause of death has been owing, directly or indirectly, to the abuse of alcohol, I have found cirrhosis of the liver, fatty and waxy liver, cancer of the liver, chronic Bright's disease, cancer of the stomach, and cancer of the bladder, and, in one case, a gummy tumour of the dura mater. It is doubtless true that in many cases we shall find upon examination no pathological changes in the brain that are demonstrable by existing knowledge and appliances; but I think we should rather doubt the quality of our resources of observation than doubt the existence of pathological changes in this most delicate, sensitive, and complex of all organs, when we have observed during life its functions to be obviously perverted, if not destroyed.

Treatment.—Having endeavoured to prove that dipsomania is a physical disease—that it is, in fact, a distinct type of insanity—I pass, in conclusion, to the consideration of the question of the care of inebriates. I am strongly opposed to inebriates being confined in insane asylums, as they are very numerous, rapidly increasing, and a troublesome class of patients, and are

a disturbing element among insane patients. They need to be in an asylum adapted in construction, location, and surroundings to their special needs. Most of this class of patients do not think that they should be placed in an insane asylum, and do not adapt themselves to their position. They are constantly demanding privileges which cannot be granted, and chafe under the restraint which is imposed upon them. They do not assimilate readily and pleasantly with the other class of patients, but domineer over and ridicule them. They are full of mischief when in an insane asylum, and interfere materially with proper discipline. Of course there are exceptions, but this is, I think, the general rule.

Dipsomania is more troublesome to manage than simple insanity, and requires, I think, more perfect discipline, both moral and physical, than the latter. In the treatment of inebriates we have primarily to build up and restore shattered constitutions and broken-down nervous systems. We have a class of patients to deal with whose digestive powers are weakened, whose appetite is impaired, whose muscular system is enfeebled, and whose generative function is often decayed; the blood is impoverished and the general nutrition disordered. They are indirectly predisposed to the acquisition of nearly all diseases, as they have, by long indulgence in alcohol, lessened the power of resisting their causes. We have to deal with the results of a toxic poison, which has resulted in more or less pathological change in the brain and nervous centres. We have also to deal at times with various complications proceeding from the abuse of alcohol, such as cirrhosis of the liver, gastritis, epilepsy, various forms of dyspepsia, and, in some cases, with Bright's disease. We must place our patient under the most favourable hygienic influences, provide for him cheerful, tranquil, and pleasant surroundings, repress cerebral excitement, procure sleep for him, and we must also give him plenty of good, nourishing food and an abundance of fresh air and exercise. I believe that to this disease, as to insanity under other forms, the remarks of Sir James Cox are equally applicable, that "purgatives, hypnotics, anodynes, and tonics are useful auxiliaries; but a comfortable meal is the best of sedatives, and abundance of exercise the best of hypnotics." All remedial measures are, I think, inferior to wholesome exercise of body and mind in this disease. We must provide amusements of every kind, and encourage patients to work. We must stimulate inertia, resist every kind of perverted feeling, and check morbid impulses; and at last we may, if we exercise a wise care and discrimination, restore our patients to their homes and to society, permanently cured.

ART. VIII.—MECHANICAL RESTRAINT IN THE MANAGEMENT OR TREATMENT OF THE INSANE.

By F. MURCHISON, M.A., M.B. Edin.

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Read to Scotch Branch Psychological Association, Edinburgh, November 14, 1875.

A MEDICAL SUPERINTENDENT related to me the following anecdote : A determined suicide was brought to him by her father, a bluff country practitioner, who said: "I place this patient in your hands. She will cut her throat, hang, drown, or destroy herself, if she can. I care nothing about your restraint or non-restraint, but I shall require her from you safe and sound, whether sane or not."

The extreme opinions at one time prevalent in Britain, adverse to restraint, have never obtained the same countenance or favour in France, America, &c., where mechanical contrivances still form a part of treatment. Even in this country the conflict between the dictates of professional duty and humanitarian sentimentalism is less keen than it was some years ago. The bugbear dread of public criticism has faded in cases where life or limb is known to be in danger; but would it now be prudent and justifiable to employ such coercion, where the danger is merely *suspected*, *inferred*, or *verbally* threatened by the patient?

The following cases may illustrate this difficulty. They have all occurred since the reign of the non-restraint creed became absolute, and are all derived either from my own practice, or the experience of a medical friend in a Public Asylum.

1. M. C., a healthy robust maniac, had been permitted to retire to bed, on the recommendation of the Medical Superintendent, that rest and horizontality should be encouraged. He was almost immediately afterwards called to see her, in consequence of her having wounded herself; and found her in bed, laughing and joking, with a large deep wound extending from about the middle of Poupart's ligament for about four or five inches towards the umbilicus. A triangular flap was folded laterally towards the ileum, the lower edge of the omentum loaded with fat, and several folds of the intestine were exposed. She had detached a pair of scissors from the waistband of the attendant, and inflicted the injury with this instrument. There was inconsiderable hæmorrhage, as neither the epigastric nor any large artery had been divided. The patient recovered com-

pletely from the effects of the wound, and from her mental derangement.

2. A clergyman, labouring under suicidal mania and the delusion that he was suffering from a syphilitic sore-throat, was requested by the attendant to say grace at a table where ten other persons were standing around. The attendant had (as is common in Scotland) shut his eyes during the benediction, and had laid his carving-knife for a moment on the table. The clergyman, seeing the opportunity, seized the knife and inflicted a frightful gash on his throat, dividing the trachea and the surrounding tissues, without, however, severing the large blood-vessels. After being sustained for some time by artificial alimentation, he died.

3. A robust mischievous imbecile, known to be disposed to injure his skin, but not suspected of eroticism, retired to bed in good health. He was found in the morning with a frightful mutilation of the penis, scrotum, and testes. He had inflicted the wounds with a sharp portion of the chamber-utensil, which he had broken. The hæmorrhage was excessive; but he seemed to enjoy the consternation of the attendants, and made a joke of the whole affair. Castration was complete, but the emuch lived for many years after this event.

4. A religious melancholic, with a suspected but not well-marked tendency to self-mutilation or suicide, slept in a dormitory with other patients in M—— Asylum. It was discovered one morning that he had, in the night, quietly gouged out his right eye, and left it hanging by a few injured tissues outside its socket. The eyeball was removed, and the patient made an excellent recovery.

5. M. E. B., an attenuated religious melancholic, and a most determined suicide, with marks of injuries inflicted with a view to self-destruction, very recently admitted into the C—— Asylum, was given in charge of a trustworthy attendant, who was instructed to watch her carefully. An hour and a half after her admission, I was hurriedly sent for, to attend to an injury which she had inflicted on her right eye. I found the organ removed from its place, and lying on the cheek, bleeding, and totally disorganised and collapsed. After some little hesitation as to the propriety of severing the lacerated tissues that still suspended the alleged offending and now sufficiently punished eyeball, I returned it to its place, where it has ever since remained, sightless, and much reduced in size: and if not “a thing of beauty,” at any rate a credit to the *vis medicatrix nature*, or to a weak solution of carbolic acid, with which it and the surrounding injured structures were daily dressed.

A consideration of these cases, which a more extended experience than mine could doubtless easily supplement, entitles

me to question the propriety of the total abolition of mechanical restraint, and of the means which have, from humane but I think erroneous considerations, been substituted; and emboldens me to advocate its use for securing the safety of such patients as are bent upon self-mutilation or destruction. Extremes are known to be hurtful in every line of life, but, strange to say, the utmost amount of liberty is, if not already granted, strenuously advocated for our asylums; and the cry, emanating chiefly from those who are ignorant of the difficulties to be encountered in the discipline and management of the insane, against locked doors, strait-waistcoats, bolts, bars, in short, prohibitory means of any kind, even if the patient goes to the extent of tearing himself or his neighbours to shreds, is now almost universal, although patients themselves sometimes petition for restraint. Indeed, in some places, where accidents are not unfrequent, and suicides not quite unknown, all similar provisions are ignored. To those who, by experience, understand the many and great difficulties of managing a class of people with intractable and wantonly destructive propensities, this method of "non-restraint" treatment appears inadequate to cope with a morbid determination to injure or kill.

Notwithstanding the general appeal for forbearance, freedom, and do-nothingism, it will ever remain evident, that in cases apparently requiring restraint, a moderate and harmless use of mechanical contrivances to secure that end will be less hurtful to the patient, and more likely to guide him in safety through a war of mental elements, than a living force that may become too lax or too harsh in its exercise. It is next to impossible to watch some patients with sufficient assiduity to prevent their carrying out their dangerous designs upon themselves or others. Their intention is so fixed, their determination so strong, and their vigilance for "opportunities" so sleepless, that whenever an attendant's eye or hand is removed from them, they injure or destroy whatever may excite their anger. I knew a lady so determined upon self-destruction, and so totally regardless of all moral suasion, that she tried to swallow pins, nails, and such other hurtful articles, and to set fire to her clothes; nor could she resist the temptation of asking me for a knife to cut her throat. A moderate use of innocent restraint saved her life, as doubtless its absence would have led to new attempts at destruction. A second lady, to my knowledge, set herself on fire in a house where she had all the freedom that the enthusiasts for "non-restraint" would have heartily admired, and had burned her body so frightfully that she lived only for a few hours. Numerous examples could be adduced to show that death and other serious evils have frequently resulted from the non-adoption of gentle and humane mechanical contrivances to prevent a patient from executing his wild designs.

Even the "camisole" and similar instrumental expedients have failed to secure safety, a result demonstrating at once the desperate character of the cases to be dealt with, how dangerous the struggles which must ensue when manual restraint is trusted to, and how ineffectual must often prove even the humanely directed exertions of a trustworthy attendant. When such means are resorted to in private houses, difficulties must be greatly multiplied. Unenlightened benevolence may probably blame me when I suggest a linen inanimate strait-waistcoat as being preferable to the muscular force of two or three strong, rough, and certainly not passionless attendants, in cases similar to those cited, or when a patient, surgically treated, is restless and refractory; when for an excited and dangerous lunatic I prefer a padded room to one in which he can injure himself or break my head. Liberty to a person not entirely delirious or demented is, no doubt, dear, and should never be denied when experience has proved its advantages; but when it tends to the patient's or his neighbour's injury or destruction, it assuredly becomes a duty to curtail it to the extent and in the manner that can be proved to be the most desirable.

It is my firm conviction that the absence of mechanical restraint is the cause of the great majority of accidents, and of many of the suicides that take place in asylums; and that at the present day a diminution of the freedom of the patient, by restraint or seclusion, would minimise, and perhaps abolish, these undesirable items in the statistics of asylums. Coercion from the very beginning, in suicidal cases of grave import, would doubtless save life, and much anxiety to those in charge. In such cases it should, I think, be unhesitatingly adopted, and continued as long as the morbid state of the patient necessitates such a measure. The cases requiring its continued adoption form only a small percentage of mental ailments, and they usually improve under judicious treatment. The great object is to save the patient from his own excitement and violence; and any course that secures this, in a harmless way, seems justifiable and right, however much it may be against the dictates of those whose sympathies will not allow them to see any virtue in it. Entertaining the opinions I express, I should not hesitate to recommend mechanical restraint in cases of acute mania, when the patient is not merely incited to destroy all around, but may exhaust his strength, engender disease, and thus precipitate that fatuity which so frequently follows such paroxysms. In addition, it might conveniently be resorted to, as an instrument of harmless reproof, in cases where "temper" and original wickedness, plus insanity, disregard moral discipline, and defy constituted authority.

ART. IX.—QUIS CUSTODIET CUSTODES?

FOR nearly a quarter of a century I lived amid a densely crowded population, where the maelstroms created by human passion, prejudice, poverty, whirled incessantly around, regurgitated into the asylum which I superintended the wrecks, the refuse, the débris which it had ingulphed, and which, upon examination, impressed upon me the conviction that the consequences of mental diseases in the present very much resembled those which had been described in former ages. I am now removed to a considerable distance from the central heart of the circulation of the Empire, but am neither inaccessible nor inattentive to the pulsations which indicate the transmission of nutritive or enfeebling influences to the extremities of our body-politic. In marking these my only Sphygmograph is the Public Press, which I readily confess is in no degree more trustworthy than the instrument the name of which I have borrowed, indicating little more than that something is wrong, leaving the discovery of what that something is to other and collateral means of exploration. There are too often contradictory tracings, and this is the text of my present Paper. It is necessary, however, to premise that my "Public Press" does not embrace such a catena of publications as may be found even in a provincial reading-room; that it consists of nothing more than one weekly medical journal, one London weekly, and one local daily newspaper; and, lastly, that these sources of information, as they are assuredly not exhaustive, are as certainly not exhausted, so that the materials are, in all probability, less numerous and less pertinent than those which are passed by unnoticed. From such authorities I have learned that my opinion as to the immutability or indelibility of forms of derangement and degeneration were altogether erroneous and untenable; that the type of mental disease had changed; that the *Mania Furibunda* described by former psychologists, and sculptured by Cibber, was antiquated and forgotten; that there have been no pyromaniacs since Jonathan Martin, no insane paricides since Dodds, no insane regicides since Oxford, no homicides since the martyrdom of Myer and Lutwidge; that walls have been levelled, bolts and bars melted into ploughshares, and that seclusion in an asylum was now converted into sport in Arcadia. Now, I am not old nor soured enough to snarl

septicaally at all this, to doubt that the reign of humanity is twice blessed, or to set any limits to the powers of nature or of moral medicine. But I am sadly perplexed when there comes, through precisely the same channels, the hope-inspiring and the bloodstained streams almost mingling together, the following facts:—1. That within a few months an attendant was killed by a lunatic in Leicester Asylum; 2. That one lunatic killed another in Durham County Asylum; 3. That a lunatic was killed in Greenock Poorhouse Asylum, and that an attendant was accused of killing him; and 4. That a lunatic was reported to have had his ribs fractured, &c., by an attendant in Northwoods Asylum, both being intoxicated at the time, the assailant being subsequently committed, tried, and sentenced in the mitigated penalties of a fine of 15*l.* and two months' imprisonment. Now, my object is not to attribute the slightest degree of culpability, malpractice, or misadventure to anyone connected with the above deplorable accidents, but simply to show that there must have been struggle, violence, fury, ferocity previous to the deathblow. Nor, in adverting to 160 instances of accidents, including several suicides, stated to have occurred within the safe and sacred precincts of asylums in Scotland in 1874-75, in the Annual Report of the Commissioners—which is the only record of such important data which we know of—would we breathe or harbour the suspicion that there was either negligence, or carelessness, or inadvertence, or the absence of such precautions as might have prevented fractures and blows and burns, as our only wish is to direct attention to the sad evidence afforded that the Millennium has not yet arrived in Bedlam.

In a report, from a person rather pedantically designated “the Lancet Commissioner,” on Brookwood Asylum, in No. 23 of the *Lancet* (4th December 1875), there is a great deal of well-intended but certainly illogical commendation of the minimisation of seclusion even as a means of treatment. I have always conceived that the morbid as well as the immature mind could be governed and guided to self-control and obedience to recognised rules by a certain amount of restriction, solitude, privations curatively imposed; that the insane should be treated and talked to as if they were insane; that it is of vast importance to convince them that they are in a lunatic asylum; that they are sufferers from a grievous disease; that all around is intended to be remedial; that seclusion is not penal, but protective against light, sounds, provocations, violence, and their own passions. There are likewise in the same article many romantic descriptions of “embellishments,” “flower-stands,” “pianos,” “wall-paper, floorcloth, and colour.” The reporter must infallibly

have been a disciple of the school of Dr. Ponza of Alessandria, Piedmont, and F. Secchi of Rome, who, after experimentation of the immediate effects of the solar ray and coloured lights, have reached the conclusion that blue and violet rays are calmative, red exciting, &c.; and that curative effects have been obtained by placing patients in chambers differently coloured, according to the form or degree of the malady, and to the object desired. It is very doubtful whether such æsthetical adjuncts can enter into the Southern Saxon mind as a means of cure, tranquillisation, or even pleasure; but as we do not know the effect of beauty on the uncultivated, such provisions cannot be regarded as supererogatory. But how utterly impotent such instruments prove, even when associated with the skill and sympathy of an experienced physician, in appealing to the savage, sanguinary, almost inaccessible nature of certain classes of lunatics, is most painfully exemplified by an occurrence which took place in that very asylum, amidst all these flowers and signs of humanity. The accident is thus stated in the "Journal of the British Medical Association" of 29th January 1876: "As Dr. Brushfield, medical superintendent of the Brookwood Asylum, was medically attending to a male patient in one of the wards of the asylum on Saturday morning, the latter suddenly seized an earthen vessel, and with it dealt the doctor a running fire of terrific blows on the head. Dr. Brushfield fell to the ground, but the lunatic, with savage fury, continued his attack. Fortunately, two of the attendants, alarmed by the noise, entered the ward. They immediately sprang on the madman, and at once disarmed and secured him. Dr. Brushfield has received several scalp-wounds, and lies in a condition of great suffering and danger."

Another pleasing because portentous and prophetic murmur has reached me, that the great majority of the insane are to be uncloistered; that they have become, or been rendered by wise and judicious management, so teachable and tractable, so gentle and self-guiding, that asylums will be dispensed with, or converted into hospitals for the small minority of acute cases of nervous disease which now occur, or into comfortable Club-houses for Dipsomaniacs; that Gheels and agricultural colonies are to be created in every county; that, emancipated from the thralldom of special arrangements or special physicians, they will be committed to the governance and muscular therapeutics of honest "hewers of wood and drawers of water," or to the superintendence of medical practitioners untrammelled by previous training or experience, and through such instrumentality assume the position of ornamental loiterers in our waysides and commons, or of prudent and productive labourers and

artisans, as members of the industrious classes. It has even been rumoured, that in certain districts whole groups of these David Gellatlys and Madge Wildfires have been gathered together, either as inoffensive disturbers, or co-operatives in the common weal. It would be invidious to cast the shadow of doubt upon the brilliant and beautiful picture thus presented. Nor would I introduce a demurrer as to the difficulties or dangers of imperfect guardianship, of economical speculation, of nullifidian treatment, which have been suggested by the cautious, the circumspect, or the timid—not even a caveat as to the unavoidable accidents, the escapades, the offences to public order and decency, which characterise the strong as well as the simple-minded. The only interest which I desire to attach to the subject is as to the influence which must be exercised by the presence of many (or even by any) lunatics mingling free and unfettered and uncontrolled in society, upon the safety, comfort, well-being, even moral health of its sane members. In order to approximate to an estimate of the nature, though not of the extent, of this influence, I have not, except in one or two cases, sought for information as to the fate or fortunes of lunatics who, though living among their fellow-men, have been recognised legally as such, who are superintended or subsidised by public boards or other constituted authorities, or who have passed the ordeal of previous confinement in an asylum; but have limited my inquiries to such individuals as have revealed their condition exclusively by the act or acts which have drawn public attention to their history. My course has consisted in extracting the notices of all such acts contained in the newspapers previously enumerated since the 24th October, 1875, to the present day (25th March 1876), and I now submit the epitomised results of my observations.

Of the 49 cases recorded, the following rough and rather arbitrary classification may be given:—Three laboured under delirium, in one under the form of delirium tremens, where the terrified sufferer, endeavouring to find shelter in a country house, is fired upon by the inmates, as they conceive in self-defence, is dangerously wounded, but whether with fatal effect is not reported. In a second the delirium was evoked by the poison of erysipelas, placed in a country hospital, raving or riotous behaviour necessitated seclusion in an unsecured separate ward, from the window of which he leapt during the night. Death followed in a week, and is affirmed to have been accelerated by the shock received. In a third, a patient, labouring under typhoid fever, knocked down his nurse, escaped from the country hospital where he had been placed, and was found at the door of a

public-house wrapped in his blanket. I have eliminated rigidly — or as rigidly as is possible under circumstances where stimulants almost always constitute one of the factors of disease—all cases of simple alcoholism, but have conceived dipsomania, when complicated with other forms of nervous disease, as entitled to a place in the catalogue. Of this the particulars of two cases are before me. In one (a female) intemperance was associated with criminality as a trade. She lived alone, was not seen nor heard of by her neighbours for nineteen days; and when her house was opened by her son, all her property was undisturbed, but her body was discovered torn and mutilated and mangled, having evidently formed the food of her only companion, a fat and sleek Esquimaux dog. In the second, likewise a female, intemperance was associated with Epilepsy. This woman, living alone, disappeared for a month. On her house being entered, her body was found to be devoured in a shocking manner by rats. Of eccentricity—that debatable land between unsoundness and insanity in which the greatest peril to the community arises, and in which the interference of guardians and protectors is most required and is especially useful—there were seven examples, very closely resembling each other in many of the repulsive and degrading features disclosed:—

(i.) Female lived alone, admitted no one. She received food, &c. through window, an old petticoat her only dress; her ablutions consisted in pumping water over her person; worked in garden; found dead, filthy and miserable, had a relative at a distance. (ii.) Female, æt. 70, lived alone in strict seclusion, affluent; found dead by landlady under bed, clutching six guineas in her hand. (iii.) Male, æt. 60, lived alone in old rent-free house, found dead. (iv.) Male, buried in hunting dress, in garden, between two favourite cows, ordered death and interment beside him of his hunter. (v.) Male, had means, lived with brother in a shockingly filthy state in a barricaded house, without windows; death said by medical officer to have been accelerated by surroundings. (vi.) Female, affluent, lived alone in great filth and degradation; authorities interfered, introducing a relative into the house, but not into her own wretched cell, where she was found dead; they confessing that they possessed no power to remove or cleanse the old woman, or to prevent persons being nuisances to themselves. (vii.) Male, lived alone, subsisting on putrid meat, diseased in consequence of filthy habits, house complained of, and declared to be a public nuisance.

Of Idiots or Imbeciles, or perhaps it would be better to designate them persons of weak mind, seven instances have to be described:—1. Female bolted in house alone; ignited clothes;

when door opened rushed into street; died of injuries. 2. Female found in following group: father sat dead in chair; mother lay drunk, with four other children around; former affluence of family dissipated by drunkenness. 3. Boy, æt. 13, boarded with two aged pauper women, at 5s. a week; known to relieving-officer for a year; when last visited, filthy, emaciated, dying, and so reduced that, although 13 years of age, he weighed only 20 lbs. 4. Female, semi-idiotcy produced by cruelty and neglect; when sent to workhouse plunged child into scalding water. 5. Female murdered neighbour by means of a spade. 6. Male, farm-servant, drowned by leaping into the sea, having previously suspended a stone round his neck. 7. Female, boarded with brother, a medical man, at 16s. a week, found by inspector sent by Commissioners in an attic, wallowing in filth, without clothes, water, &c. Had been seen tied to a tree. Brother committed for trial.

Of six Monomaniacs, the following particulars will suffice:—

1. Male, killed old female because she was a witch, and exercised evil eye over him; denounced thirteen others as worthy of the same fate. 2. Female, circulation of scandalous and libellous statements, evidently under delusion; tried, and ordered to be detained during Her Majesty's pleasure. 3. Clergyman, æt. 26, urged by fears and suspicions, leaps from window, rushes blindly from home; body found in ditch. Attended previously by medical man for six weeks. 4. Male, laboured under delusions of suspicion and weakened intellect; left alone in his own house for a minute, he blew out his brains; attended by medical man during illness. 5. Male, confessed himself the murderer of two women, who had actually been killed by a near relative. Arrested by police, but recognised as insane. 6. A clergyman, complained of murderous attack by an Irish labourer, which he repelled by attacking his assailant with a knife. Showed cuts on arm, supposed to be self-inflicted; regarded as insane.

Of eight cases of Mania, the facts chiefly worthy of notice were as follows:—1. Clergyman, under religious delusions, and in private house with attendants; during their temporary absence nearly murdered mother by means of razor in his possession. 2. Male, under religious delusion, attempted to shoot Rabbis in synagogue. 3. Male, placed in public hospital, although previous excitement noticed, murdered four juvenile inmates, and assaulted medical man and nurse. 4. Male, aged, murderously assaulted two grandchildren. 5. Male, murdered sweetheart; insanity detected while confined in jail. 6. Maniac escapes semi-nude from asylum, and is drowned by plunging into a frozen pool in an unprotected quarry. 7. Male in work-

house awaiting removal to asylum, plunged red-hot poker into abdomen, cut his throat, and attacked attendants. 8. Male, whose raving was detected, whether his insanity was so or not; attended by medical man, who is summoned before Coroner by wife of deceased for having stated in certificate that he died from an overdose of morphia, exhibited by her. Jury declared these words uncalled for.

Of Homicidal Mania there were three cases:—1. Male, æt. 70; stabbed wife in sixteen places, both victim and murderer being drunk at the time. 2. Girl, killed boy and girl, apparently courting capital punishment rather than confinement, or prompted by some such incoherent reason. 3. Male, killed wife by cutting throat; declared by jury “not guilty on ground of insanity.”

Of one case of Chronic Mania, the important features were:—that patient had been formerly in Colney-Hatch; that his mind was again disturbed; that he was addicted to intemperance, and that he nearly murdered his wife.

Five individuals, affected with different forms of Melancholia, betray their mental condition: in one, by disappointment after defeat in a Chancery suit, by wounding arm and swallowing chlorodyne with a view to self-destruction; in another by dejection under anticipation of misfortune, and by suicide in his own ship by laudanum; in the third by despondency, with suicidal tendencies, which were carried into effect by starvation; Coroner’s jury, however, giving as their verdict, that deceased died from natural causes, found dead in her own single room—the Coroner remarking, in reference to this, “that persons letting single rooms should be compelled to see that their tenants lived in accordance with decency;” in the fourth by premonitory depression during puerperal state, followed by infanticide; in the fifth by long-continued depression following impoverishment. Dealt murderous and, it is expected, fatal blows on head of sister-in-law with axe. Of Dementia with delusions there occurred one illustration, where the terms of a will were disputed by the sons of the deceased upon the ground that the testator was of feeble mind, and subjected to undue influences; and of Dementia without delusions, two. In one, the victim was suspected of burglary, because he had been convicted of theft in the same place many years ago; actually he died of softening of the brain before occurrence of the supposed second offence, and is believed to have laboured under this disease at the time of the first. In the second case, a railway guard, after passing through two serious accidents, which had injured his mind, leaps from the train, and is killed. And lastly, there are before me reports, first, as to the committal to prison of the principal witness in a civil case for contempt of court,

where he became insane, but in what manner affected is not mentioned; secondly, of three foreign sailors having been landed at the port of Dundee in a state of aberration, though their precise mental condition is not specified; and thirdly, of a fasting girl, who had lain mute, motionless, subsisting exclusively upon fluids, for upwards of four years. Is supposed by Medical Attendant to be conscious, but to be labouring under Hysteria.

The dangers, disasters, even absurdities, which may arise from procrastination; from postponement of interference with a recusant lunatic, dictated by fear or compassion, and until all less equivocal symptoms have given place to a tornado of violence or to truculent malice; or from the local or social position or surroundings of the offender; or from the ignorance or cowardice of his captors and custodiers, may be signalled by the following narrative. As the scene is sensational, the very words of the newspaper reporter are employed:—

CAPTURE OF A MANIAC.—On Friday the 19th ultimo Mr. F., the active inspector of poor of this parish, accompanied by Dr. D. L. and Mr. M., the police officer of the district, proceeded with a boat and crew to B., for the purpose of securing a desperate lunatic there. The lunatic in question was born insane, and was a harmless creature, living with his mother and sister, until two days before the date mentioned, when he became enraged, and furiously attacked his relatives, who fortunately managed to escape, and left the house to himself. On their departure he shut and barricaded the door, remaining inside, but sometimes coming to the door in a nude state. On Mr. F. and party arriving at about 4 A.M. on Saturday morning, and getting Mr. H., the constable, and others, they proceeded to the maniac's abode, which is about a mile up the glen. A consultation was then held as to how to proceed in apprehending the lunatic. The sound of voices near the hut attracted his attention, and opening the door he peeped out, but on seeing people so close to him, immediately started back. In about a minute or two, however, the lunatic peeped out again, and started back as before, when the G. constable rushed in after him, calling on some one to follow quickly with the lantern. The madman, on seeing the light, ran towards the bed, but before entering it he was seized by the powerful constable, from whose grasp he struggled frantically to free himself; but the other constable, and the plucky Dr. D., the gamekeeper, and M., shepherd, came to the rescue, and even then it was after a struggle their furious prisoner was bound hands and feet. His face and head presented a most hideous spectacle, being cut, bruised, and disfigured, swollen to an enormous size, and all over with blood and dirt. This appeared to be self-inflicted when in passion, by dashing his head against the walls or anything near him at the time. The prisoner was taken straight to L. in a boat, and from there by Constable H. to the I. Asylum. He was rather quiet all the way, except at S. F. Station, where he struggled very much with the constable, attempting to seize him with his teeth, but with

the assistance of the two porters he was quieted. He had handcuffs on all the time, but his feet were free, and on having these strapped he resisted no further. The lunatic is about 40 years of age, and was a powerful man until somewhat weakened by recent sickness.

That the safety and quiet of communities differently situate, regulated by different laws and institutions, and animated, it may be, by different motives and considerations, may be disturbed in a similar manner, may be gathered from the following incidents which have all taken place within the period to which my remarks have been confined :—

I. A German family living on the outskirts of the forest in the wild region of Monroe County, Penn., U.S., where population is sparse and scattered, had one child fairer and more favoured than the rest, but who was of weak mind. In consequence of this deficiency his movements were but little controlled, and he wandered for days and nights in the surrounding woods, subsisting upon berries or nuts, and sleeping in caverns or hollow trees. He had been absent for twenty-four hours when a purblind or precipitate sportsman announced to the parents that, mistaking the child for a deer, he had shot little Johnny, and led them to the bleeding corpse.

II. A trial took place in the Court of Nice, in November last. The accused were a father and his son. It would appear that a dispute had arisen between these parties and a Mons. D., respecting a certain property upon which they respectively had claims. The son, having encountered Mons. D. upon the spot in question, deliberately shot him dead. The father was acquitted; but the homicide, in consideration of mental deficiency, was condemned in the mitigated penalty of five years' imprisonment with hard labour.

III. An escaped madman, clothed only in his shirt, climbed to the roof of the Hospice of St. Omer, and there not only defied but deforced all persuasions, threats, and practical means employed to induce or compel him to descend, having severely wounded a soldier who was approaching him with a brick, of which he had several in his possession. He was in vain drenched by the water-engine, tempted by food impregnated with chloral, &c. The Sub-Prefect, wearied, perhaps irritated, by want of success, ordered a detachment of soldiers, which was among the crowd, to fire upon the offender. A wound in the shoulder produced no effect, and the commander of the military prevented further firing; but the Sub-Prefect, having more direct authority over certain gendarmes who were present, ordered them to use their revolvers. He was again struck in several places, but did not move. Darkness coming on, the pursuers deserted their prey, who at length went down a chimney, where he was caught. It is understood that legal proceedings have been taken against the Sub-Prefect.

ART. X.—CONTRIBUTIONS TO THE PHYSICAL PSYCHOLOGY OF CRIMINALS.

*An Address delivered in the Vienna Section of the Medical Association
in Lower Austria, November 10, 1875.*

BY PROFESSOR MORIZ BENEDIKT.

Translated by R. H. SEMPLE, M.D., F.R.C.P. Lond.

MY address at the forty-eighth meeting of the German Naturalists and Physicians at Gratz, has called forth against me in our medical world an agitation, which did not spring altogether from honourable motives, and was not carried out by very creditable means. I have been reproached with building up a theory on three examinations of the brain. That is simply a gross mistake, or an intentional perversion of the facts, which are just the reverse. My efforts to establish on the ground of modern evidence, a natural system of morals, have led me to limit the domain of responsibility incomparably more than is the case in positive legislation; and the facts of criminal psychology, the meaning of which is still undervalued by the mass of jurists, have led me to regard the impulse of criminal natures in the light of natural laws. Those criminal lawyers and police agents who enjoy a reputation in the history of crimes are acquainted empirically with these laws, and have therefore discovered with great acuteness both crimes and their perpetrators. But it still remained to consider whether an anthropological change does not lie at the foundation of the criminal propensity of brigands, habitual thieves, relapsing forgers, and criminals from incurable indiscretion. Long before I had seen a criminal's brain I had expressed my conviction, in writing, that a deficient organisation lay at the base of these criminal natures, and at least, occasioned the disposition to an abnormal moral constitution. The significance of the three criminal brains, together with the fourth, to be now demonstrated to you is, however, in itself very important.

When one after the other in three cases sentence of death has been passed and carried into execution, and the evidence of material guilt has been afterwards shown to be faulty, the circumstance must cause an enormous sensation, and on the one hand must warn judges and juries to exercise the greatest caution, and on the other must cause the ministers of justice

to hesitate, so that they do not hastily recommend sentences of death to be carried out.

But the three criminal brains of which I spoke at Gratz, and of which I have demonstrated two before you, and to which I am enabled to add another, have the same significance. In four cases following one another it is now shown that there exists a deficient anthropological development. In all four cases judgment was pronounced on the ground of the existence of a full responsibility recognised by judges and medical men. These four cases must suffice to make judges and ministers of justice, as well as legislators, hesitate in coming to a decision; and if sentences of death are necessary they should be justified on other grounds. If even it should be proved that only in a small proportion of cases such changes in the dead body can be detected, still a full responsibility cannot be assumed in any criminal of this kind without positive evidence that these changes are wanting.

But a strange freak of accident must exist if these changes can occur one after the other in three cases, and, as I can now assert, in four, if the circumstance were not a common one. What a spectacle would be exhibited if anyone out of a predominant literary relationship, in a disease seldom tested by necroscopy, had discovered appearances corresponding four times one after the other, and which the more bear upon them the stamp of truth since I have long ago, and before I thought of criminal brains, laid down the position that morals have their seat in the most posterior parts of the brain. Allow me to demonstrate the brain of a murderer of middle age, who had shot a relative from revenge, with whom he was living at enmity.

The skull was unsymmetrical in a high degree, inasmuch as the greatest arching of the parietal bone was on the right side, in front of the ear, and that on the left was behind it. The posterior cranial cavity on the left was smaller than on the right. Examine the brain from above, and on the right the cerebellum is not covered by the top of the posterior lobe, and the former lies on both sides uncovered on its outer margins. Examine first the right hemisphere, and the occipital fissure exhibits a similarity to that of the apes in the presence of the *plis de passage*, which are also present in the interparietal fissure, the ascending spur of the Fossa Sylvii, and the fissura temporalis prima, and also in all the frontal furrows.

The posterior spur of the fissure of the Fossa Sylvii does not reach to the upper median border, and thence outwards, but is interrupted by a transitional furrow from the posterior central lobe to the second vertical lobe. In some other respects

the appearances in this brain correspond with those observed in the brains formerly demonstrated.

On the left side the interparietal fissure runs parallel with the fissura Rolandi. Hence the first and even the second parietal lobe are diminished in size, and the parieto-temporal operculum is placed in front of the horizontal occipital fissure, and is connected with it. On the other hand the first and second temporal lobes corresponding to it are greatly developed. This occipital fissure also contains *plis de passage*.

The lobuli lingualis and fusiformis are on the left very badly, and on the right are relatively well developed, so that on this side it appears that the perpendicular occipital fissure at the lower edge of the median surfaces is directed in an acute angle towards the scissura hippocampi. But on the right also the two convolutions rise steeply upwards towards the gyri hippocampi and uncinatus. The two last named gyri are on both sides strikingly deficient in furrows.

The third frontal convolution at the base is on both sides merged in the Fossa Sylvii. The left first frontal lobe is divided into two parts by a sagittal furrow. At the union of the second and third frontal convolutions in the fissura præcentralis of this side there is one operculum and also a second far in front in the second frontal fissure. The fissura præcentralis reaches as far as the upper median border. The second frontal fissure does not proceed from the third.

By these four examinations following one after the other the probability is therefore very great that at least in a large proportion of murderers the brain is in a low grade of development, but still the question must be asked whether this change is not already visible in the skull; and, if such be the case, we should have the special advantage of being, perhaps, enabled to announce during life the probability of the existence of cerebral abnormalities. When I communicated my researches on the examination of brains to my friend and pupil, Dr. John Badik, physician to the Illawa prison, he hastened to examine the heads of 365 murderers in that establishment, and invited me to superintend his researches.

In the case of the murderers at Illawa, Dr. Badik was struck with the want of prominence of the external occipital protuberance and with the flatness of the occiput. When I examined a great number of the prisoners it struck me as very characteristic in their appearance that the occipital part of the sagittal diameter of the skull was, in general, strikingly shortened. If from the depression which lies on the anterior surface of the mastoid process (the mastoid fossa) a sagittal diameter is conceived to the highest point of the occiput, the measure amounts

in normal persons generally to at least $\frac{1}{3}$, and generally more, of the whole diameter. It is exceedingly rare that in normal persons this diameter sinks to $\frac{1}{4}$, and only in certain cases, and generally only on one side, does this diameter amount to less than $\frac{1}{4}$. The occipital brachycephalia, on the other hand, is present very frequently in the case of the robber-murderers who were examined. I propose to represent figures of these skulls in a forthcoming series of plates.

I offer at present the following provisional numbers in reference to this subject. The occipital brachycephalia appeared in the highest degree (namely, under $\frac{1}{4}$ of the whole diameter) in common robber-murderers (*raubmörder*) in 43 per cent. of the cases; in murderers from premeditation (*motiven-mörder*) in 34 per cent.; and in habitual thieves in 23 per cent. In a medium degree (i.e. in $\frac{1}{3}$ to $\frac{1}{4}$ of the whole diameter) in common murderers in 34 per cent.; in murderers from premeditation in 21 per cent.; and in habitual thieves in 12 per cent.; while the highest degree (of occipital brachycephalia) in normal persons—namely those outside the prison—is very rare, and the medium degree appears in very few. More striking still do the facts appear when we make the percentage calculation of those cases in which the disproportion is altogether wanting. In common murderers it is wanting in 23 per cent.; in murderers from premeditation in 45 per cent; and in habitual thieves in 65 per cent. In normal persons it is wanting as a rule. The flattening of the occiput appears to be less characteristic. This appears in the highest degree in the first category of criminals, in 59 per cent.; in the second in 52; in the third in 53: in the medium degree in the first category in 24 per cent.; in the second in 20; in the third in 18; while in normal persons it is wanting altogether in 56 per cent., and is present in a high degree only in 16. The want of prominence of the occipital protuberance exists in common murderers in 75 per cent., and in the other categories in about 59; but in normal persons it is only the case in 22 per cent.

It is a known fact that the two halves of the skull are seldom symmetrical. In no case is this fact so striking as in habitual thieves. While in common murderers the asymmetry existed in a high degree in 26 per cent., and in murderers from premeditation in 32, it was 37 in habitual thieves. In a small degree the asymmetry was remarkable in 64 per cent. of the common murderers, and in 63 of the habitual thieves, while it amounted to 43 in murderers from premeditation. By the measurement of the eye the asymmetry was not perceptible in common murderers in 10 per cent., and in murderers from premeditation in 25; but, on the other hand, it

was never wanting in the habitual thieves whom I saw in Leopoldstadt, while it was wanting in normal persons in 55 per cent.

As a very characteristic form of the skull, I observed in 56 per cent. of the habitual thieves' skulls in Leopoldstadt a condition which I designate as vertex-steepness (*Scheitelsteilheit*) rising up from before, backwards. While, for example, the highest point of the crown generally stands a little higher ($1\frac{1}{2}$ centimeter) than the boundary line between the part of the forehead covered with hair and that which is uncovered, this proportion is altered in habitual thieves, and there are differences amounting to 7 centimeters. Thus the frontal diameter at the top of the crown is broad, and broader than that of the forehead; and further, the highest protuberance of the two parietal bones lies commonly in such an oblique horizontal line that one end of it lies before and the other behind the ear.

Except in habitual thieves, I have seen this form of skull only once in an individual, of whose moral constitution I have no information. In many cases the bones of the face have been found equally unsymmetrical with those of the skull, especially in habitual thieves. In connection with these communications I drew you the skulls of two murderers, whose brains I lately demonstrated to you. You see the brachycephalia, the flatness of the occiput, and the want of prominence of the protuberance in a marked degree.

Permit me to make some remarks on the relation of the present investigations with the doctrine of Gall. The fundamental idea of Gall, that the psychical functions are localised in the brain, is an acquisition of the most recent experimental physiology and cerebral pathology, and in a certain degree undoubtedly correct. I have already published some remarks on the defects of Gall's theory. The chief of these is, that Gall imagined complicated psychical processes to take place in a definite part of the brain. Murder, for instance, is a complicated psychical function; sometimes it is committed from an overpowering sensitiveness, such as inflicting death from an excessive sense of honour. At another time it is allied to an ethical weakness or imbecility, because the materials for the formation of nobler feelings, especially of compassion and justice, are wanting. In professional robber-murderers it is an excess of the feeling of strength which develops a sensation of delight in their own strength, and a certain horrible feeling of delight in contrasting it with the weakness and the deficient feeling of strength in other people. Besides, according to experience, murder and manslaughter are generally connected

with a defect of intellect, which is unable to foresee the consequences of the deed to the perpetrator, while in other cases there is a satisfaction in the cunning of a premeditated plan corresponding with a pressing impulse towards the act. The factors of such an act are therefore composed of intellectual, motor, and sensory impulses, both positive and negative; or, in the language of cerebral pathology, of impulses which find their expression in the function of the anterior lobe for intelligence, of the middle lobe (i.e. the circumference of the central lobes, and also probably of a part of the upper lobes) for the motor part, and of the posterior part of the brain for the sensory. The same rule applies to stealing in habitual thieves, to forgery, &c., as to murder. It is therefore especially erroneous to assume for murder, for instance, a definite and exclusive topographical change, since crime is the product of different qualitative and quantitative factors. It is useful to remember how it happened that on a false scientific basis the doctrines of Gall on the localisation of the psychical functions of the brain were set aside. It was by the experiments of Flourens, which appeared to prove that there is a single psychical organ in the brain, inasmuch as by slicing off the organ the functions were preserved up to a certain degree; and, as soon as one incision had been reached all the cerebral functions appeared to cease. These experiments are in the present day completely contradicted. Their cogency, as in opposition to Gall, is, nevertheless, not invalidated. It must further be declared that many impulses in mental actions are founded on similar anatomical relations in physiological conditions, since apathy and indifference on the one hand, and ready excitability, irritability, and passion on the other, depend on physiological conditions of excitability.

Another fundamental idea of Gall is, that the skull is a model of the brain, and skulls formed the peculiar bases of the writings of that author. It has been objected that there are in the skull very many accidental secondary prominences which have no counterparts in the brain. Fairly considered, however, this objection is not very material, inasmuch as it refers only to unimportant and changeable details and comparatively rare abnormalities. No scientific man, even if he does not altogether agree with Gall, disputes the doctrine that the construction of the skull is remarkably proportionate to the whole anthropological organisation in brutes and in man; and the whole of craniology, as it is understood by anatomists and anthropologists, would have no meaning if this idea were not the leading one. It must only be admitted that Gall has sought too much and found too much, and that he was led astray by a false

psychological analysis; but his fundamental idea is not shaken.

Whoever has followed with any degree of interest, on the one hand the verdicts of juries, and on the other hand knows how Holtzendorff has examined the fallibility of legislation in reference to the complicated psychological process of crime, will be forced to the conviction that only a psychology founded on a basis of natural science (and which takes into consideration the abnormities of cerebral development and of cranial structure) is capable of bringing to a scientific conclusion the important civilised ideas of law, which changes with the times and with the prevailing classes of the people, &c., and of impressing the results on the popular understanding. When we reflect, moreover, that few men stand at the head of modern scientific knowledge; that the necessary education in natural science is wanting in lawyers as well as in the laity, and that it was regarded as an especial merit in the physicians of the last generation to think *universally* as little as possible; then it cannot be a matter of wonder how unprepared many people still are to enter upon developed ideas; and when a distinguished jurist says, in an essay, that these ideas are unsuitable to the State and to the people because they inspire fear of their consequences, but that the freedom of the human race is concerned in these ideas, then you will understand that the conscience of the best men makes them indifferent about contending against slander and calumny. These are ideas to which character belongs, because want of character and weakness of character tremble at the last consequences of shifting ideas, and are deceived by sophisms which harmonise with the prejudices of the masses and of the powerful.

Allow me, in conclusion, to make a few general remarks. Superficial readers have made it a reproach against me that if the view taken by me is correct punishment must be abolished. Such would be the case if the doctrine of responsibility, as it is taught by most jurists of the present day, were the necessary basis of legislation. The true basis, however, is the protection of the existence of normal persons against the ethically degenerate, and the necessary degree of this protection is an essential measure for the severity of the punishment. The greater, for instance, is the general corruption, the smaller is the guilt of each individual, because he is to be regarded for the most part as being misled; therefore we must punish more severely because the threatening danger is greater, subjectively and objectively, for society. From my doctrine of the correction of criminals on the ethic plan would result the abolition of the punishment of death, even if the arguments against

this were not so weighty as Holtzendorff has so convincingly proved. In those cases where the criminal is to be regarded as incurable, and the crime very dangerous, future justice will punish more severely by rightly appreciating the views advanced by me. The modern doctrine of judicial punishment is evidently in a false condition, because it always sets free criminals whose relapse is certain, allows them to commit fresh crimes, and then for the first time deprives them of the liberty to do mischief. Of what importance then must it be, if the anthropological study of the brain, the skull, and the head offers us the prospect of determining, at least in a portion of the cases, with scientific clearness, when a relapse is to be expected. Criminal psychology must supply the factors of which, in each special case and in each group of cases crime is composed, and must determine whether imprisonment and education have eradicated or can eradicate a part of the factors and the predisposing impulses. Now allow me to close with the passage—

Edle streben, Schlechte hohnen und unterdrücken.

Noble characters struggle, and base ones sneer and oppress.

SUPPLEMENT.

I will now give the description of the brains demonstrated in a former meeting. They were those of two murderers who committed a murder for hire.

In one the cerebellum is not covered by the occipital lobes, and the occipital brachycephalia is present on the left side. In the right hemisphere the ascending posterior spur is merged with the ascending part of the interparietal fissure and reaches at the median surface into the gyrus fornicatus. The second parietal lobe is divided from the first temporal lobe by a long fissure (parieto-temporal fissure) which is lost in an operculum with *plis de passage* (parieto-temporal operculum) which is bounded by the lobulus tuberculi and by lobules which are probably to be regarded as processes of the first and second temporal lobes, but are pretty clearly distinguished from them. The ill-developed gyri fusiformes and lingualis rise upwards steeply from the plane of the gyrus uncinatus towards the summit of the occiput, and thereby, that the fissura calcarina may reach to the same point, is the gyrus rectus of the occiput reduced to a minimum. The vertical occipital fissure is in direct communication on the one hand with the horizontal occipital fissure, and on the other hand with the sulcus hippocampi. The horizontal occipital fissure exhibits the ape-form with its *plis de passage*. The first three temporal convolutions are

arranged concentrically according to the brute type, with the concavity downwards. The gyrus uncinatus and gyrus hippocampi are very deficient in convolutions. The fissura præcentralis reaches to the middle border. (The first and second frontal fissures are divided from it by imperfect convolutions.) *Plis de passage* are found both in the horizontal occipital fissure and in the parieto-temporal operculum, in the posterior spur of the fissure of the Fossa Sylvii combined with the interparietal fissure, in the anterior ascending spur of the same fissure, and also in all the furrows. On the left, the posterior ascending spur of the fissure of the Fossa Sylvii rises to the median line, and the interparietal and parieto-temporal fissures are separated from it by ill-developed portions of convolutions. The vertical occipital fissure is not connected with the interparietal fissure. The second frontal convolution is crossed with the fissura præcentralis, and thereby are the first and second frontal convolutions divided into (smaller) posterior and (larger) anterior halves. The fissura præcentralis reaches as far as the inferior border, and is excessively convoluted. The first and second temporal furrows are arranged in a more normal manner. In other respects the arrangement is the same as on the right.

In the second brain, the body of the organ appeared, on the other hand, altogether oblique and shortened, and the obliquely situated cerebellum was deeply imbedded in the niche of the fourth and fifth temporal convolutions, whereby the mass of the occiput appeared to be deteriorated in a high degree behind the gyrus uncinatus. On the right, the posterior spur of the fissure of the Fossa Sylvii rises high up, but without reaching the median border. The interparietal fissure is in normal proportion with it, but stands, nevertheless, in direct communication with the fissura Rolandi. The horizontal occipital fissure shows no decided similarity to the apes. The parieto-temporal fissure is not much developed; the parieto-temporal operculum is well marked. The first three temporal fissures, with their convexity downwards, concentrically surrounding with a rim imperfectly formed convolutions. The fissura præcentralis goes as far as the median surface, and contains an operculum in the transition between the second and third frontal convolutions. The same is found (between all the three frontal convolutions) in the most anterior part of the first frontal furrow. The second frontal convolution at the base badly developed; the fissura cruciata showing a complicated operculum. The gyri hippocampi and uncinatus strongly projecting over the frontal lobes and little furrowed. The gyri fusiformis and lingualis rising steeply towards the top of the occiput, much diminished, and especially the first

very much shortened by the first two temporal convolutions, and connected in a peculiar serpentine manner with the posterior combining part of the lobulus tuberis and the second temporal lobe at the parieto-temporal operculum. The perpendicular occipital fissure is connected with the sulcus hippocampi and conceals numerous *plis de passage*. Especially the median part of the occipital lobe reduced to a minimum. On the left, the posterior ascending spur of the fissure of the Fossa Sylvii and the interparietal fissure exhibit their normal proportion, but the latter conceals in it numerous *plis de passage*. The horizontal occipital fissure exhibits the ape structure. The parieto-temporal fissure is not well marked, but the parieto-temporal operculum is. The vertical occipital fissure is connected with the sulcus hippocampi. The first temporal furrow shows the brute form by a posterior spur (the concavity directed downwards). The fissura Rolandi is connected anteriorly with the first and third frontal furrows, and in all the fissures there are numerous opercular structures. The third frontal convolution is submerged at the base.

In the case of the first murderer's brain examined the space of the *plis de passage* was, in the part behind the posterior central convolution, almost predominant over the developed convolutions, so that a normal type of convolutions and furrows could scarcely be drawn. Here also the furrow of Rolandi communicated with the fissura præcentralis. The occipital lobes scarcely covered the cerebellum.

ART. XI.—ON THE NATURAL HISTORY OF CRIME.

Address of PROFESSOR MORIZ BENEDIKT, delivered at the Meeting of the Juridical Society of Vienna, December 28, 1875.

WHEN medical men and lawyers, in the exercise of their professions, come into relation with one another, the contact is generally unpleasant. The lawyer has a great bias to positivism, and wishes to pour all acquired knowledge into legal decisions and definitions. The medical man, on the other hand, looks on his knowledge as a mass of crystal, to which, in the course of progress, new parts are continually added, and from which old ones are washed away.

The lawyer stands on an artificially-secured foundation—the medical man, generally, on a tottering base. I must admit that many a medical man staggers more than corresponds to the tottering base: on the one hand, perhaps, on account of his imperfect positive knowledge in special cases, and on the other, because he often mistakes the point of view presented to him. You must also, however, admit with me, that the lawyer generally endeavours to insist too strongly that nature should bow beneath the caudine yoke of his definitions.

The most important point of contact of the two kinds of discipline is judicial psychology, and it is exactly here that a chasm of leading convictions yawns before us, which is very difficult to fill up. Explanation is easy with the intellectual leaders of jurisprudence; but the mass of lawyers stand on the foundation of a view of things which is growing old and of a system of nature which is full of tendencies. Their ideas, nevertheless, are primitive. They reckon with the ideas of instinct and reason in the old sense, which are indeed officially received, but have long been rejected as untenable by exact science. The naturalist looks through the glasses of an approaching aspect of the world, which shows man and his relations to external objects in the light of natural laws. If he speaks of psychical freedom, he understands by the term the multiplicity of psychical tendencies on the basis of numerous modifying factors in the track of natural laws.

A harmonious union is only to be expected when the experiences and the methods of both directions are traversed by all persons. Then there can be no doubt that, in spite of the proximity in point of space and time between much in us and much in them, there is a thousand years between us.

The naturalist resolves the psychological complicated equations into their elements, and endeavours to establish the laws of psychological treatment without allowing himself to be influenced and led astray by the last metaphysical questions, just as the natural philosopher studies the laws of motion without troubling himself about the metaphysics of force. We employ here the physiologico-anatomical language, as it arises from the structure and function of the psychical organ. With this natural instrument, however, it is much easier to resolve the equations of Nature, and to make them intelligible.

For us naturalists there is no doubt that man is the highest summit of the animal kingdom, and not merely in a purely anatomical sense, but also in a physiological and in a further physiological—namely, a psychological sense. We have no doubt that man in his psychological relations does not merely reach this summit in a partial development, but that all the psychological elements of the animal kingdom are present in man, and occupy, qualitatively and quantitatively, the highest grade of development. Hence we come to the manifold mixtures of character, as they denote races, breeds, members of certain epochs and of social relationships; and again, within these great groups, also special groups. Who does not recognise in the peacock spreading his feathers, and in the winding serpent, in the lion and the fox, in the bee and the farm-horse, in the bull and the tiger, the types of human characteristics, as if they were exercises of nature for human types?

Science however knows, on the other hand, with what wonderful consequences, even into their minutest forms, the general idea of genus, species, and individual corresponds to the construction of the animal body. Even from single teeth, and often from the smallest bones, the zoologist distinguishes the genus and the species in prehistoric animals, and not only their external form, but also their food, their mode of life, and the climate and the nature of the soil from the foundation of time. He is able also, however, from these single elements to pronounce upon the character of the animal—whether it was a hammer or an anvil in creation, a robber or a gatherer, blood-thirsty or gentle—whether it preserved its existence by superior force in attack or in defence, or by stratagem, rapidity, or invisibility.

With what extraordinary singleness of purpose nature preserves the whole in the part is shown by those two cells which represent the existence and the peculiarity of the individual. The whole historical work of development represented in the individual and all the work of the individual are given back in the seed-thread, spermatozoon (*Samenfaden*). It gives back all

the peculiarities of the whole of the organs to the very minutest varieties, and where the seed was only in proportion to the fruit, the father and the ancestors are recognised again in the son. So does the egg represent in all their varieties the mother and her ancestors, and also in this circumstance, that as the elements of the one or the other cell predominate in the fruit, so is all the former history of the whole race expressed. We have in these two cells to deal with original elements, which neither microscopy nor micro-chemistry can reach in any way, since science is not able to individualise seed and egg. Here two important remarks may be made.

We know that every brute and human individual, from the moment of the fecundation of the egg to its full development, undergoes a series of phases corresponding to the historical development of tribe and species. But it may partially stand still at a certain stage, and then we have to deal with a relapse into an earlier historical or peculiar stage of development.

Further, we see every organism in a lower stage of development to be in harmonious formation, notwithstanding the incompleteness of its organisation. We do not call the sucking child idiotic, although it possesses fewer ideas than the dullest idiot: we do not consider it to be paralysed, although it has fewer movements at its command than in the far-advanced general paralysis of a grown-up person. Lastly, we do not call it wicked, although it has no moral ideas and sentiments. It presents an incomplete model of a regularly-working organic machine.

If certain parts fall short of their further development, then a machine exists which works harmoniously, but perhaps in a contrary way to that for which it was designed, or it acts only in this way under unfavourable circumstances.

Such a development represents a deviation of being (*Abartung*), in contrast to derangement of mind, which represents a degeneration of being (*Entartung*). For the first condition the term given by the French clinicists is appropriate, viz. *Diathèse*—i.e. another kind of physiological being.

But to those zoologico-anthropological elements, from the division of which into parts we are able to draw remarkable conclusions as to the construction and the existence of the animal, belongs the skull, from the formation of which we are able (with the assistance of other known elements) to draw the safest conclusions as to the psychological character of its possessor.

In every race we observe numerous psychological varieties, which again may be combined into types. If we look round within the most strongly marked circle of individualism,

namely, within one and the same nation, we find again everywhere the typical varieties. Within the German nation the Rhinelander and the German-Austrian represent the colouring of being and of appearing, the more clear sense of the actual, as well in grasping ideas as in giving them back again; and therein they approach the Roman type, while the temperate North-French Protestant runs parallel with doctrinaire Germanism. Just so is it with races. How many men, and among them the ornaments of cultivated times, represent the psychophysical, passively-enduring woman?—I name only Christ, Fiesole, Grillparzer—and how many a woman wears the psychophysical trousers?

There is an hypothesis, probable in the highest degree, that the observed typical varieties of the skull coincide with different psychological varieties. The danger is great—and it will only be reduced to a minimum in the course of centuries—of making too hasty deductions as to the connexion of the formation of the skull with the type of character. Yet this is no isolated fact. Everywhere science goes on tacking towards the goal of truth, sometimes straying on one side, sometimes on another, from the straight path.

The excursions sideways are becoming always smaller. To the objects aimed at by mankind, among which mental development plays the chief part, that one is chiefly opposed which, on account of possible errors, obstructs exertion. This adaptation of parallel facts of varieties of character and of skulls is a problem to be solved, but it is one forbidden by facts.

I show you here some specimens of skulls of races from the collection of this University. You see in the skull of the Chinese, the Italian, the German-Austrian, and the Moor, types which are as different as the psychological types of these races. I also bring under your notice, while I am showing some other skulls, some varieties of skull-formation which, as I shall show you, play a great part in the natural history of crime.

If, in the normal skull, in a straight line from before backwards, the distance is measured from the fossa behind the auditory foramen to the most posterior eminence of the occiput, it will be found to amount to two-fifths and more of the straight line drawn from before backwards, in the middle line between the forehead and the summit of the occiput (the sagittal diameter). I show you now that in other skulls this is not the case, inasmuch as the first line reaches one-third or one-fourth, or less, of the second. I call this “*Brachycephalia occipitalis*.”

In the second place, I show you that the difference in height between the highest point of the forehead and the crown of the head is but small ($1\frac{1}{2}$ centimeter). In many skulls the

difference is considerable (as much as 7 centimeters), and this proportion I call "anterior vertex-steepness" (*Scheitelsteilheit*).

A further variety is the asymmetry of the two halves of the skull, and, lastly, please to observe the form of the posterior surface; it is in certain skulls very flat, while in others this occipital flatness is wanting.

The naturalist constructs for himself, moreover, MAN out of the experiments of Nature. He sees the sketches for the present Man in the animal world of the present and of the past, in original man, and in the developing man of the historical epoch. His physiological experiments on brutes and his pathological experiences enable him to eliminate much that the non-naturalist considers necessary to the highest activity of mental life. Experiment in the last ten years has shown, for instance, that much action and inaction in man and brutes are not necessarily connected with the elements of consciousness, on which they were considered to be dependent.

If, in some animal, the bearers of consciousness, namely the cerebral hemispheres, are divided, an equally important mechanism remains, which in former times would have been regarded as a mystic piece of witchcraft. A frog so treated swims when placed in the water; it leaps on the solid ground, and makes intentional movements of clinging when it comes from the water to the edge of the bank. A bird treated in the same way flies when thrown into the air, clings firmly when placed on a ledge, and runs on smooth ground. So we see that the purpose of the mode of action may be present without consciousness.

There are epileptic and cataleptic states in which such combined actions may take place without any consciousness, or with a little remnant of it, and such states are also observed in severe injuries of the brain. There is no longer any doubt, in the present day, that the *surface* of the brain represents the organ of special mental activity; that from it the movements are directed in such a succession as corresponds to the current of the ideas and feelings; and that the form of the surface, independently of any metaphysical views as to certain physiological properties of the constituents, represents the framework in which, up to a high degree *à priori*, the mental and the sensitive life of man and his actions are confined. It is, indeed, indubitable that in all directions the boundaries are established, and that in relation to them the statement is true, "Man cannot alter himself, but can only develop himself."

On the surface of the brain are seen the convolutions, which are divided by fissures. In the development of the human brain this system of fissures is complicated by the fact that the coming

cerebral convolutions grow out from the deep parts. While in the brain of brutes the appearance and the completion of certain fissures is a mark of progress, because these are the expressions of newly-appearing or further-completed parts of the brain, the prominence and the preponderance of the fissures in man forms a sign of arrested development. For this condition arises from the circumstance that certain convolutions remain stationary in the deep parts, and are therefore not arrived at their full development, or have not developed themselves. It would be going too far to give details to non-medical hearers. I will only mention at present that I have observed this condition of arrested development in the criminal brains I have examined. Another important relation exists between the posterior cerebral lobes and the cerebellum. In the two ape brains (Chimpanzee and Baboon), which I here show you, and which do not belong to the highest of the ape series, you see the cerebellum almost completely covered by the occipital lobes, while you see the cerebellum in the sheep completely naked. In developed man no example has been known, up to the present time, where this covering of the cerebellum by the occipital lobes was wanting, while in three brains of murderers this deficiency existed, and in the fourth an equivalent abnormal condition was observed. You see also that the occipital lobes in the normal brain, which I show you, do not stand much higher than the other parts of the inferior surface of the brain, while you see here, in the photographs of murderers' brains, that in them the posterior part of the lower surface rises up steeply and so the occipital lobe loses remarkably in size.

On this surface of the brain the significance of the smaller portions is not yet sufficiently determined. Still, it is already an acquisition of science in the present day that the most anterior part of the brain is the seat of the life of ideas (*Vorstellungslieben*), the middle part the seat of psychical action in a motor sense, and the most posterior part is the seat of the sensations and feelings. The doctrine of the localisation of the psychical elements on the cerebral surface, rejected a short time since on the ground of prejudices and false experiments by most persons, is now an incontestable fact of exact science. This fact cannot be handled by the ignorant, because, in order to appreciate it, the most apparently simple psychological proceedings must be decomposed into their elements. I will make this clear to you by a simple example. A few decennia ago, speech was regarded as something placed ready in man by Nature, and even the comparative study of language was unable altogether to solve the psychological riddle of speech. Pathology has taught us that there are cases in which speech may be lost

almost independently of all other disturbances. Hitherto, in consequence of false psychological analysis, an attempt has been made to assign a definite and simple cause for speech. Nature, who makes no concession to theoretical convenience, showed different causes. I determined this controversy some years ago by a strict analysis of the idea of speech, in showing that the idea, *speech*, was built up from different elements, which again must be localised in different parts of the brain. Since there is a connection between the centres of sensation and volition, and certain nerves of the organs of articulation (the tongue and the muscles of the larynx), there came the original elements of speech—namely, cries and single syllables, as in the child. The perception of the second individuals who hear these sounds, and who hence recognised the simplest forms of volition, must have led to the attempt to retain such articulate sounds as means of intelligence, and, when once an instrument is known as being useful for a definite purpose, man endeavours to apply and to improve it for all suitable objects. The individual receives the gift of his speech through hearing and reading, and therefore by complicated sensations of sound and sight, which remain in his brain as forms of memory. These forms of memory, or ideas of speech (*Sprachvorstellungen*), may, however, remain in another part of the brain, as the highest incitement to the articulate movements of the tongue, the vocal chords, &c. The ideas themselves are constructed out of other elements of sensation, and then enter into combination with the ideas of speech. In one series of cases, therefore, the ideas may be deficient, in another the centres of the ideas of speech, or the centres of the movements of articulation. Clinical facts correspond to this analysis, and it is found that this mental activity of speech may have, and actually has, different centres on the cerebral surface, and especially in the brain itself. The same, however, is the case in most of the psychical functions. Every act is composed of ideas, of urging or restraining feelings of pleasure or of discomfort, and of motor impulses. It therefore contains different factors and different centres on the cortical part of the brain. It must, therefore, henceforth be regarded as altogether erroneous to attribute a complicated mental effort always to one or another factor, and to make a distinct part of the brain alone responsible. One factor may incite to a certain kind of action, but in another lies the check to its performance, or such a positive preponderance that the result of the activity projected outwardly has a result which is opposite to the first incitement.

In order, therefore, to analyse the mode of action in a man, and therefore also in criminals, it is not alone the product which should be known, but an analysis of each of the factors

must precede and be strictly weighed, to find whether some are not wanting, or are of doubtful value, and whether the counteracting influences of a counterbalance are thereby removed, or the latter exhibit an unusual development.

Jurisprudence has, as yet, in theory not taken a full account of these relations; and in practice, namely in legislation, matters are incomparably worse.

Let me now glance at the psychology of crime. Considerations on this subject must be pointed in two directions, namely: 1. In regard to the prominent positive or negative characteristic features in the several categories of crime; and 2. In regard to the psychological unity of crime. For on this point there can be no doubt, namely, that the same criminal propensity which in one individual leads to a criminal act, in another is neutralised by the counterpoise of the other factors; and that under definite political, social, national, and closer relations the same propensity breaks out, which in the same individual constitution under other conditions would have remained latent. I will here adduce some characteristic features in general, which may especially give occasion for the commission of crime.

One of these is a fancy for virtuosoship (*Virtuositätskitzel*), which plays a great part with the forgers of bank-notes, and with pickpockets and burglars. I scarcely need assert that the same tendency in an intellectually and morally gifted person might give rise to many follies and absurdities, but would not necessarily pervert the whole conditions of existence.

A second characteristic feature, which becomes the psychological foundation of many categories of crime, is a relapse of human nature into *nomadism*. Such men cannot continue in one place and in a confined space, and a moderate activity is to them for any long time impossible. Change of place, neighbourhood, and occupation is for them such an urgent impulse that they cannot resist it. Mountainous countries and great plains especially predispose to this restlessness. This characteristic feature plays an important part in the psychology of vagrancy, of vagabond thieves, of robbery, of poachers and smugglers. In well-constituted men this restlessness leads to wandering, to change of business and enterprise, and to fondness for travelling, and the speciality of bold travellers springs from high intellect and great energy. This very characteristic may be the reason why normally organised men step forth out of everyday life and perform actions which are universally advantageous.

Another basis of crime is formed by dislike of work, and may be the result of a bad education, but may be developed in a psychological form in individuals in whom corporeal exertion does not create a certain feeling of pleasure, but causes unpleasant sensations, which they can overcome only under certain circumstances of compulsion. This peculiarity may also be developed in a high degree without becoming the basis of crime, if work is not the essential condition of active existence. In connection with the dislike of work, the love of enjoyment is a powerful incitement to crime, because, on the one hand, means of living out-of-doors are wanting, and, on the other, together with the love of enjoyment, the motor and mental energy is not present to procure the means of living and of enjoyment. Both impulses lead especially to crime when that ethic constitution or development is wanting which is necessary to the foundation of a powerful feeling of what is right. A further fundamental element, which stands in psychophysical contrast to dislike of work, is an excessive physical consciousness of strength, which leads to arrogance, and thereby to the pleasure of misusing strength against the weak. This impulse leads to the love of bullying, cruelty, and manslaughter, if a higher intellect is absent which should turn the feeling of strength in a right direction, and there is also absent a complete ethical consciousness which should prevent misuse of power.

I will here allude to an impulse which is of great significance in the psychology of crime. We observe in several states of disease a peculiar type, which consists in the fact that attacks of illness of more or less short duration alternate with more or less long, and generally for a time preponderant, healthy intermissions.

We can designate all these pathological states in a broader sense as *epileptiform*. In the domain of vices we are met by that peculiar alteration of different conditions of tension in the central nervous system, called "quarterly intoxication" (*Quartalrausch*)—i.e. a temporary dipsomania returning with a certain regularity. The same thing is observed in criminals: for instance, in habitual thieves, who, being temporarily seized with the deepest remorse, are fortified with the best resolutions. They behave for a time in a most exemplary manner until they relapse again, and indeed, as they unanimously express themselves, from an irresistible impulse. I would designate this state, which is of great importance to the practical doctrine of criminal punishment, by the expression "moral epilepsy."

Now let us turn to the psychology of special crimes, and we shall see that the peculiar appropriate impulse to their commission, and the form of the whole psychological product is exceedingly different in its composition of factors. One of the most important impulses in the psychology of crime is the very deficient development of the sentimental life in particular, and, together with this, of the sentiment of rectitude. Thence it happens that so many criminals are never penetrated by a feeling of their guilt or very evidently show repentance. They may perhaps feel and dread the material consequences of crime but they are deficient in the feeling of moral guilt. This ethical weakness, as we have said, may be congenital, or may arise from deficient education.

Now let us examine specially the case of murder. The celebrated work of Holtzendorff is known to you all and I need not analyse it in detail.

I will therefore only state how manifold is the group of motives from an ethical and psychological point of view, which leads to premeditated murder, and we may even maintain that many murderous deeds are committed in certain circumstances only by better-constituted natures, while the crime in selfish and lower natures under similar circumstances is not committed.

To this category belong murders from wounded honour and within it are also included many murderous acts committed under certain circumstances of cultivated and social life, which are impossible under other conditions. For instance, there exist in countries with feudal institutions many murderers and robbers from motives of wounded honour, because the lower orders and the poor find no protection in the law. We must state that those are just the noblest natures who revolt because they and their neighbourhood are injured in their honour and their lawful existence by arbitrary cruelty. The bondslave and outcast who quietly looks on while his sisters and his wife are being defiled—who scarcely feels any anger or is very quiet when his old father is punished with cruel severity, stands ethically in a much lower position than he who takes a gun in his hand, and in the name of justice organises his private revolt against lawless society. With a righteous instinct the lower class beholds in such districts its national heroes in its robbers. The ethical inferiority is here in the predominant and law-giving classes. To this category also belong partly the murderous deeds from religious or political fanaticism which generally involve a complete abandonment of the most vital individual interests in favour of an idea.

In ordinary robber-murder attended with violence, criminal covetousness is the first impulse—*i.e.*, the struggle to obtain unlawfully the possession of the means of existence or of enjoyment. In such a criminal the consciousness must be more or less clear that he cannot obtain for himself those means by his own physical or mental labour, or he has no pleasure in such labour. In the professional robber there are usually added the arrogant feeling of strength and its terrible consequences, or the pleasurable feeling of surpassing cunning, and further perhaps the nomadic tendency, and moreover want of conscience or ethical idiocy.

Covetousness, ethical weakness of mind, pleasure in the imaginary or actual conviction of obtaining the desired means of existence by work when mental or bodily power is deficient, or the dislike of taking this power any longer into account—such are the factors out of which the psychological product of assassination for the love of gain is composed.

Violence of temperament, continuance of a strongly excited dislike, overweening feeling of power and of pleasure in exercising strength over relative weakness of intellect and of ethical development, form the psychological basis of rough manslaughter, as well as of murder from revenge with slight motives.

The psychology of theft is not simple. Shakespeare has with his artistic excellence pictured to us the common thief in Bardolph. Excessive pleasure in revelling and disgust for work form the peculiar basis of the common thievish nature. These are the impulses which cause the consciousness of the balance between *meum* and *tuum* to be disturbed and finally to disappear altogether. That such a thievish nature, when it acquires wealth, does not develope itself is clear, for whoever has the means of revelling and wants nothing to work for has no need to be a thief. Besides, there comes in the burglar as well as in the pickpocket the love of virtuosship (*Virtuositätskitzel*), and in the former there is the pleasure in conspiracy. In the category of thieves relapse is very common. In boldness the horse-stealer stands next to the robber.

In habitual thieves moral epilepsy is observed in its most striking form.

The kleptomania of hysterical persons is worthy of observation, in whom there is an impulse to possess everything without making use of it.

According to what has been stated, the whole psychological *I* is affected in the thief, but the ethical and the motor *I* and the intellectual in a more limited sense. For it needs hardly be as-

serted that in a developed intellect a thief rarely exists. For with the same psychological material also, a thief rarely appears under high mental conditions, but a deceiver. Stealing is too bad a business for a continuance.

I will mention one more type, the bank-note forger. He is distinguished by extraordinary but passive cleverness. He shows himself very clever in all kinds of execution, but he wants conception and he wants the developed feeling of honour. Pleasure in his cleverness, and the facility of gaining his living by it, excite him continually to the free exercise of his art, and the special bank-note forger belongs to that type of criminals who very generally relapse. The same prominent characteristic feature of motive ingenuity will protect a man from the path of crime, if he has the talent of conception and the spirit of origination, or if a developed ethical talent is present in his disposition.

The knowledge of the complicated nature of the psychology of crimes is, however, extraordinarily important in the question of the degree of punishment to be awarded, and of the possibility of amendment. When anyone with a fierce temperament and an arrogant consciousness of strength has been mentally ill-developed, has learned only the roughest hand-labour, and has not been educated in morals, he may become a useful member of human society if his intellect and his cleverness are developed and the slumbering better feelings are awakened. Then is the individual further developed and the restraints which were formerly wanting may now come into activity. When the conditions are of this nature that from the impulses leading to crime there is no dissuasion, and to those restraining from it there is no persuasion, there is no chance of improvement and legislative punishment must always become stronger and stronger for habitual criminals. There is then no advantage in setting such a criminal free, for he will again commit crime. Further, it should be carefully considered whether exemplary conduct insures the probability of improvement. Under psychico-material restraint criminal nature acts differently from what it does under the enticements of freedom.

If we now make an inquiry on the ground of these empirical experiences and their analysis, in order to find whether, in a certain percentage of certain grades and categories of crimes, certain changes cannot be detected in the brain or the skull, we shall find that we do not need to seek, as the old doctrine of Gall attempted to do, for the foundation of crime in altogether local developmental alterations, but that excesses and defects of constitution and development must be present in the three great centres of ideas, of motion, and of sensation.

But it must besides be declared, that even if it were ascertained that characteristic changes are present in criminal natures, it should not thence be assumed that men so constituted must necessarily commit crime. The question here is only as to *a predisposition*, just as we say that people with a narrow chest have a predisposition to tuberculosis, or children of insane parents have a predisposition to insanity. It must always depend on a number of conditions whether a nature predisposed to crime will actually become a criminal, and the clearer we are as to the psychological and anthropological marks by which the disposition may be revealed, the more surely shall we prevent crime by education and watchfulness.

The question now arises as to the way we ought to take in order to meet the predisposition with remedies drawn from natural science? Above all things, it is obvious that numerous brains of criminals must be examined, in order to see whether in certain categories special corresponding alterations are to be found. That the first four examinations in murderers have led to positive results was an encouraging circumstance, and that these examinations exhibited a resemblance to the brute in the fact that the cerebellum was not covered by the occipital lobes, and that there was a deficient development, is in the highest degree significant.

A second series of investigations by the aid of natural science must be made on the skull. That types of skull are generally connected with types of character may be concluded with safety from the results of craniology in the animal classes and from the study of the skulls of different races.

I have formerly brought before you some varieties of proportion in the human skull, and I now communicate to you the fact that these varieties exist also in men outside the prisons, but are incomparably more common in criminals, and partially in special categories of criminals. This is especially the case in the shortening of the occiput and in the anterior vertex-steepness (*Scheitelsteilheit*), and then, in decreasing progression in the asymmetry and the flattening of the occiput. I will observe further that I did not note the vertex-steepness in the murderers at Illava, because at that time the fact had not yet particularly occurred to me. I observed it first in the habitual thieves in Leopoldstadt. Besides, in Illava it was not striking, and you observe it also in none of the photographs of the heads of murderers, for which I am indebted, as well as for the greatest part of my present materials, to Dr. Bodik, the prison physician.

I will now present you with the numerical results:

	Robber-murderers	Murderers from motives	Thieves	Normal skulls
(a) Brachycephalia occipitalis—	per cent.	per cent.	per cent.	per cent.
Wanting	23	45	60	93·5
Medium	34	21	20	4·5
Great	43	34	20	2·0
(b) Occipital flatness—				
Wanting	16	28	49	58
Medium	24	20	22·5	30
Well-marked	59	52	28·5	12
(c) Asymmetry—				
Wanting	10	25	10	62
Medium	64	43	47	25
Great	26	32	43	13
(d) Vertex steepness—				
Wanting	—	—	40	85·2
Medium	not	not	—	—
Large }	examined	examined	60	14·8

These figures do not speak—they cry aloud. They are, indeed, deficient in the fact that they are not derived from great numbers, but still they are sufficient to form the basis of a qualitative judgment.

A double explanation may be possible: first, that crimes signify only the germs arrived at maturity, while the germ up to a certain degree is widely spread. Crimes, therefore, would be merely the most urgent stages in ethical national guilt.

But wherever abnormalities occur in a high degree and in combination, there exists a relapse into an earlier stage of the development of mankind, and the examinations of the brains support this view.

It appears to me indubitable that both these views are connected together, and that in particular the number of those capable of improvement is to be judged according to the first, and the incurable according to the second category. The latter represent the proper criminal natures and they bear about on their skulls the marks of Cain.

Gentlemen, I should have waited till I could come before you with results free from fallacy, had I not required your assistance in carrying them out. It is a prerogative of the German nation to uphold scientific tendencies even without sympathising with them, and indeed sometimes to promote those which are distasteful; and the German-Austrian statesmen and scholars cannot better prove their title to be called

Germans than when they follow this example. For to be a German in the present day is to work with the arms of truth for mental and moral freedom, to contend, and in necessity to endure. To perceive and to acknowledge, conviction and mode of action ought to hang together not by tottering joinings but by insoluble cement.

ART. XII.—CLINICAL AND PHYSIOLOGICAL RESEARCHES
ON THE NERVOUS SYSTEM.*

SCIENCE, as well as History, has a tendency to repeat itself. What was attempted in the eighteenth is now reproduced, with slight modification, in the nineteenth century. Hartley, a disciple of Newton, modestly essayed to demonstrate that all impressions from the external world were conveyed along the nerves to the brain, and thus entered consciousness, by a succession of vibrations and vibratuncles, either disturbing an imaginary ether universally diffused and locally surrounding the nerves, or by equally imaginary tremors and agitations in the nerves themselves, or in the fibres and fibrillæ of which they consist; while Dr. Hughlings Jackson has, for several years past, argued that certain motions, mollar or molecular, it is not clear which, are propagated or “discharged” along the course of the nerves to specific muscles or sets of muscles, and, indeed, to all parts of the system, and there energise or destroy the functions of these parts in proportion to the nature or force of the discharge, whatever that may be. It must be confessed that these discharges, and the thing, the energy, the aura, the “destroying or discharging lesions,” are, as yet, as little susceptible of proof as the vibrations or vibratuncles of Hartley. The main object of this publication appears to be to show that, contemporaneously with the mental, there take place motor actions in the convolutions of the cerebrum, which pass along, or are connected with, remote organs through the medium of efferent nerves, effecting corresponding changes in the motor or physical functions of these organs. As this epitome has been divested of the transcendental language which that school, of which the ardour and originality of Dr. Hughlings Jackson legitimately constitute him the leader, has, we think, unfortunately adopted; and, as it is possible that the accuracy of our condensation may be questioned, it may be prudent to quote the words of the formula now given forth.

Dr. Hughlings Jackson says, page 7, Preface: “It is assumed that the cerebral hemisphere is made up of nothing else than nervous arrangements for the co-ordination of impressions and movements; that, in other words, the unit of composition of

* *On the Localisation of Movements in the Brain*, by Dr. Hughlings Jackson.

this, as of every other nervous centre (the "organ of mind" as well as the ciliary ganglion, spinal cord, &c.) is *sensori-motor*;" "an epileptic discharge of a convulsion caused 'convulsion of the arm'" (p. 6); "The spasmodic deviation of the eyes, spasm of the hand and arm, drawing of the face, and torsion of the tongue, represent in a brutal way a development in vast numbers of the motor elements of the anatomical substrata of visual, tactual, and verbal ideas; and this amounts to saying that convulsion is as much a symptom of disease of the 'organ of mind' as delirium is" (p. 39); and "I have long believed that not only the movements ordinarily so called, but the movements of arteries and the viscera, are represented in the cerebrum" (p. 18).

Subordinate to the maintenance of these propositions we find in this paper collateral issues and objects, such as a flattering tribute to Hitzig and Ferrier, in friendly forgetfulness that their experiments are still, in the opinion of many members of our profession, *sub judice*, and are openly questioned by Burdon Sanderson, Putnam, and others; secondly, a vindication of the author's priority of claim to the discovery of the supposed dual function of the cerebrum; thirdly, that the left brain is the leading or driving side, the side or seat of will, while the influence of the right is automatic—a conclusion suggested, perhaps, by Brocas' "Localisation of Language;" fourthly, that both hemispheres are educated in expression, and, although the left be the leading side, the right is the seat of perception, educated sensations; and, fifthly, that the anterior part of the cerebrum is chiefly motor, the posterior chiefly sensory, &c., the latter being claimed by the author as an observation of his own. Around all these subjects are grouped illustrations, analogies, parallelisms, guesses at truth, which have occurred to many inquirers, but are still undemonstrated problems. These remarks, however, shall be confined almost exclusively to what the author conceives the central and most important position in his brochure, and which he has elaborated with great solicitude and detail, and to the mode in which that elaboration has been conveyed; the position, viz. that co-ordination of impressions and movements affected in the very highest centres the substrata of consciousness; which may be the streak of light before the dawn, the penumbra of a discovery, but assuredly it is neither the dawn nor a discovery. Had Dr. Hughlings Jackson condescended to employ terms in common use, his postulate might have amounted to this, that certain areas of the brain, the convolutions, for example, subserve to, or are the organs of, movement and sensibility, which come under the cognisance of consciousness through such parts or organs,

and might have been fairly accepted, or, at all events, discussed; but, in its present form, it appears to be contradicted at once by Physiology and Pathology—by Dr. Hughlings Jackson's own pathology, or what he calls “experiments instituted by disease,” by his doctrine of compensation, remote influence, and so on.

Declining, at present, to enter upon the rather dark and devious path of which the substrata of consciousness, memory of words, ideation, are the goal, it is incumbent to ascertain the author's precise meaning when using such terms as “co-ordination of impressions and movements in the convolutions,” and whether he desires to express merely that volitions or conditions eventuating in movements, voluntary or involuntary, in remote organs have their origin in the convolutions, or that molecular movements themselves occur in the structure of the convolutions, and are consentaneous with the motive which prompts a motion, and the remote motion itself. Dr. Hughlings Jackson might have been misled by what he would call the “coarse and brutal,” and what we, more mildly, would style the unphilosophical view that a certain incentive or feeling is contemporaneous with external acts, that something—a “discharge”—proceeds from the central brain to the circumferential muscles, &c.,—to adopt the former and perhaps popular theory; but we apprehend that his speculations have compelled him to embrace the latter, as we find: “For mental states arise during molecular movements in nerve cells and fibres, and there is no more difficulty in believing that they arise during molecular movements, in nerve cells and fibres representing muscular movements, than during molecular movements in those representing peripheral impressions” (p. 34). Now it is almost needless to affirm that of such molecular movements in cells, &c., even our most sanguine microscopists have afforded no proof nor probability. But supposing that such a “pons asinorum” had been crossed—supposing that the convolutions had been proved to be sensory motor, and that they were centres of co-ordination, we find it impossible to reconcile such a doctrine with Dr. Hughlings Jackson's admissions: 1. “That part of the body is not necessarily paralysed when corresponding part of brain is destroyed, as neighbouring parts act for it;” for example, when the corpus striatum is injured, the adjoining convolutions exercise their conservative influence over the said muscles. 2. It is true that there is a sort of reservation in the affirmation that “discharges are not more isolated than the action of single muscles”; thus, hemiplegia is referred to a destroying lesion in the corpus striatum, and convulsion to a discharging lesion of the adjoining convolutions, which, when both nervous diseases

occur unilaterally or alternately, may be regarded as another example of this convenient compensatory law. Again, compensation is declared not to be absolute; when parts of the brain are destroyed, and are not followed by any obvious symptoms, it is conjectured that the loss of the muscular sense may have taken place! These difficulties are enhanced by the following considerations:—

I. These statements point rather to the *diffusion* of the relation, whatever that may consist in, subsisting between the convulsions and distant parts, than to its localisation.

II. In discussing the effects of a tumour, situated in the white matter about the middle of the lateral ventricle, it is admitted that these must have been remote—in other words, that they were transmitted through healthy portions of the brain to that apparently involved by the structural disturbance.

III. And in this section we detect a “destroying lesion” to the whole of our author’s argument, as he confesses that although the lesion in unilateral convulsions *may* be found in the region of the corpus striatum, yet, “occasionally no local morbid change can be found in any part of the brain”—a confession common to every one who has spent much time in the dead-house. In connection with this part of the inquiry, the Appendix may be adduced as militating against many of Dr. Hughlings Jackson’s favourite views.

Dr. Hughlings Jackson has written much in the present as well as in former communications of aphasia as indicating a lesion both of the faculty and expression of the internal and external organ of language. Many of his opinions are ingenious, and all curious; but it is conceived that he has altogether overlooked the consideration that the recognition of the laws and the practical use of language are purely mental acts; that they do not necessarily involve the use of articulate words; that in the uneducated deaf and dumb no articulate sounds are known, although the cerebral area and the organs of articulation are both present and healthy, so that it must be the nexns, whatever that may be, which is at fault; that there must be many cerebral organs, if any, and only some of these injured in certain aphasies, who lose not their whole language, or difficult and polysyllabic words, but whole and distinct classes of words only, such as verbs, nouns, &c., or only one or more of several known languages; that in employing mentally the signs of any, even emotive mental states, there is no corresponding action of the muscles or other vocal organs, and it is matter for regret that he had had recourse to the solutions afforded by Fournie, who speaks of a *nascent* but unobvious movement of the organs of

speech, and by Bain's absurd and untenable proposition, that "When we recall the impression of a word or a sentence, if we do not speak it out, we feel the twitter of the organs just about to come to that point."

The author, although propounding dogmata many of which may be regarded as heretical, is no dogmatist. He introduces his opinions, even when he regards them as especially novel and important, sometimes with hesitation, sometimes as if they were provisional and temporary, always with modesty and forbearance towards actual or supposed antagonists; and is worthy of all praise in urging the necessity for marking and measuring the *precise* situation of lesions in the attempt to localise mental or motor influences; while his instructions as to the course of observation (p. 22) to be pursued in reference to palsy and other nervous disorders, indeed the whole of the latter pages of the pamphlet, are worthy of consideration. But there are two grand, we would say vital, objections to the *mode* in which he has developed his various convictions and hypotheses. First, we do not speak merely of the vice of style, of the lack of logical lucidity, involved parenthetical paragraphs, many of which are incomprehensible to minds of moderate capacity; but of the technical and still unrecognised terms employed, which at once obscure his meaning and the force of his argument. It may be that this metonymy may, in part, depend upon the poverty or inflexibility of our mother-tongue; but it is more palpably chargeable against obscurity of thought, crude notions, doubtful premises, disputable conclusions, and against that tendency which all innovators, perhaps all discoverers, have yielded to, of devising new words, or misapplying old ones, in order to expiscate their own conceptions, rather than the qualities or entirety of the thing conceived. Has Science secured any gain by the introduction of "discharging lesion:" or has she lost by associating a simple alteration of structure with an explosive shell, and the expulsion of an imaginary shot or shell from the brain; or are our ideas enlarged when we are told that "chorea and convulsions are discharges of cerebral cortex," and that the "causes of epilepsy are discharges from different brain-centres," and that the havoc inflicted by palsy issues from a "destroying lesion?" That the illustration is not overdrawn, may be seen in the application of the specific terms "abnormal" and "morbid" to such discharges. Can we appreciate the distinction between a "healthy and nervous discharge in convulsions, by the latter being more sudden, excessive, and brief;" or can we fully realise that the "spreading of spasm is due to different lesions in the grey matter exploded;" or that there was any justification for describing the progress of nervous

diseases from the more simple to the complex, from the voluntary to the automatic functions, by the new term "dissolution," in contradistinction to the now hackneyed "evolution?" Expressions such as the "coarse, brutal development of functions of brain," and a "coarse lesion as not being a neat experiment," we attribute to the idiosyncrasy of the author; while the inability to comprehend such profound truths as, "Deeper in brain, further in mind, more complex arrangements of motor processes, reaching interrelation with complex motives," and the "substrata of consciousness, memory, &c.," to our own. Secondly, the author, though manifesting considerable anxiety, knowing that he is dealing with sharp and dangerous instruments, to avoid the infliction of wounds upon the principles or even the prejudices of moderate men, and to repel charges of scepticism and materialism, appears on the threshold of what he believes to be a new revelation in somewhat suspicious company. Herbert Spencer, Tyndall, Bain, Lewis, represent a certain school of thought; and if Dr. Hughlings Jackson does not doubt and disbelieve, he assuredly thinks, on many points, as they think. Although he distinctly disclaims all disposition to penetrate into the mode of connection between mind and matter, admitting only their parallelism, and although he quotes Tyndall's platitude that we cannot reason out the simultaneous appearance of motor and mental acts; yet he concurs with Lewis, that neural process and feeling are the same thing under different aspects, and many of his own propositions are susceptible of an interpretation which may imply that these conditions differ not in nature, but as they are viewed from different standpoints in philosophy. Such are the following: "Motion enters as an element, not into ideas, but into the anatomical substrata of ideas;" "Sensations, as mental states, arise during energising of motor as well as sensory nerve processes," thus concluding that when we see a rose as well as when we will to pluck it, or extend our hand to pluck it, there is movement in convolutions.

It is superfluous to carry this analysis further, and we are disposed to accept the explicit denial that his views of the constitution of mind are, as of the cerebrum cerebral, neutralising the inferences which might be drawn from vague and circumlocutive expressions.

ART. XIII.—PHYSICAL CULTURE, AND ITS INFLUENCE ON
THE BODY.*

MR. PRESIDENT,—In response to the call you make upon me, as having had something to do with the gymnastics in this institution, I plead guilty to the charge. I did take an active part in originating and establishing this department, and have served on a gymnasium committee from its commencement. I have tried to do in this direction what seemed to me was my duty, and upon no work or acts in my life, do I look back with more interest and satisfaction.

It is now almost twenty years since the question of doing something to promote the health of students in college was first agitated and discussed, at the meetings of our Board of Trustees. This resulted in the erection of the gymnasium in 1859, and the establishment of the department of physical culture and hygiene. Since that time fifteen classes have entered college, and more than 3,000 students have taken part in these exercises.

Now, what has been the result of this experiment?—has it proved a success or a failure? Once we were compelled to advocate its necessity, its safety, yes, even its propriety; but all, I believe, admit now its beneficial results—results which are invaluable; and a pretty settled conviction exists, I believe, that almost any other department in college could better be dispensed with than that of the gymnastic.

In recounting its advantages I might refer you to the great contrast between the health of students now and twenty or thirty years ago; that very few now break down in health, compared with what once did,—that for years there has been much less sickness and mortality in college than formerly—that the average health of each class is found to improve from year to year; so that when they come to graduate, instead of appearing with pale faces, picked features, and lean, lank forms, we see students graduating with health, possessing strong muscles, and a large amount of vitality laid up in store to meet the battles of life.

I might refer to the improved discipline in the college, and the higher standard of scholarship brought about, in part, by these exercises; I might also speak of the great advantages

* Remarks of Dr. Nathan Allen, at the meeting of the Alumni, Amherst College, July 7, 1875.

that this training, and the knowledge obtained of physiology and hygiene, afford in preparing the student to take better care of his health in the future; I might allude, too, to the fine exhibition of gymnastics, witnessed this morning, and the public interest attending them. But these things are not new; they are familiar to you, and need no comment. But this experiment has an interest and significance beyond and outside of Amherst College. By it we have been establishing certain great principles, of vast importance to other institutions and the public at large. When the question was first agitated of building a gymnasium and introducing gymnastic exercises, it was said by some very good, and wise men too, that it was of no use—that it had repeatedly proved a failure, both in Europe and in our own country. But for one, I said No, it would not fail; that, if properly managed—if it was placed on the high ground it ought to be, and its merits were fully appreciated—it *could not fail*.

But to do this physical culture must be placed on the same ground as the classics or the mathematics, or any other department in college;—it must be made a part of the curriculum of college exercises, and must have a teacher or professor in charge, who should be a member of the faculty, and have a voice in the government of the institution. The trustees and faculty must show that they attach importance and character to it, as much as to any other department. It must have the hearty support of the students, the goodwill of the public, and the commendation of the press. Thus with such a public opinion created it *would not, could not fail*.

In this attempt to give it character, and enlist in its favour public opinion at Amherst, we were fortunate. There has been no lack of interest or want of popularity. This is one of the secrets of its success. In fact, it would be idle to anticipate success for it anywhere, unless it was properly appreciated by leading minds, and was held as important in public estimation. This is the main reason why gymnastic training does not succeed better in other institutions and places.

No large institution, we believe, can be found, in this country or in Europe, where the human body and the laws that govern it have received the same attention as they have in this college. Some dozen years ago President Felton, of Harvard, was here at Commencement, and witnessed with great interest our gymnastic exercises. At an interview with him the same evening, he said to me, "I would give anything *if* I had such a department at Harvard." The word *if*, to my mind, was very significant. President Felton died the next year, so that no attempt to introduce it was made by him.

There is another point deserving notice. When we were first agitating this matter, the objection came up that the Trustees and Faculty had no right to establish laws that would require students to go through with such exercises—or, in other words, that would direct the movements of the body. We might require of students certain hours of study and regular recitations, but could not require anything like physical exercises. Such a sentiment is still prevalent. Within one month President Porter of Yale, in publicly advocating boating, said, according to newspaper report, that he had but “little faith in enforced attendance upon physical exercises;” that is, I suppose, he would make a distinction between *physical* and *mental* exercises. President Porter has no hesitation in adopting college rules that enforce regular recitations in metaphysics, and the performance of rhetorical exercises; to comply with these rules certain laws of the brain must be exercised—this is indispensable. Now if, in order to apply in the most efficient manner the laws of the brain, it is found necessary to exercise systematically the muscles of the arms, the legs, or other tissues and organs of the body, what should make the difference? Are not the limbs, the lungs, the heart, a part of the body as much as the brain?

There is another important principle involved in our experiment. We all know what a powerful influence rank or merit-roll has in college with students. Now the professor, through his great ingenuity, has so managed to reduce the gymnastic exercises to certain definite points, either in attendance, deportment, or improvement on the part of the student, that in making up the rank or standing of each one, this department comes in for its share of marks. This is a step in advance, we believe, of anything you can find elsewhere, and will attract attention wherever such exercises are duly appreciated.

Another fact is worthy of notice. A most valuable collection of statistics is being gathered up by this department, such as can be found nowhere else in the country. These statistics refer to the differences in the weight and height of students at different ages, to the growth of certain muscles from year to year, to the changes in the capacity of the lungs, to the strength of the body at different periods, &c. These statistics will sometime become invaluable in determining certain points in physical science in its application to student life.

There is only one more topic to which I wish to call your attention. The establishment of the department of physical culture here in its example and the influences going out from it, has served to increase greatly the interest on this subject throughout the country. On this point there can be no question.

Within a few years what a great change has taken place in games, outdoor sports—in ball-playing, boating, &c.! A mere glance at the daily press will afford abundant evidence of this fact. For one, I rejoice in this increased attention to the value of the human body, and the importance of taking care of it. As ball-playing and boating seem just now to call forth the most interest among students, I wish to say a few words on the comparative merits of these exercises from a physiological standpoint; and if many years of study and observation can make a man a good judge here, I surely ought to understand the nature and effects of such exercises.

In instituting a comparison as to the relative merits of different kinds of exercise, many things must be taken into the account—such as the time and place of the exercise, the number engaged in it, the expenses attending it, the surroundings, associations, moral influences, &c. But a consideration of these topics would require more time and attention than can be given them on the present occasion.

While boating and ball-playing are peculiarly calculated to awaken public interest on the subject—even to a state of enthusiasm—and improve the physical condition of great numbers, yet as a *means of health*, they are not the best adapted for the scholar, and consequently for literary institutions. They call into exercise chiefly certain muscles of the chest, the spine, and the limbs, and when long continued, they produce a predominance of muscular tissue, an abnormal development of these particular muscles, at the expense of other muscles in the body. It is *strength of muscle* that is here sought above all other things, and not a harmonious development of the whole body, upon which health so much depends. In fact, just so far as these exercises develop an excess of this tissue, it detracts from the healthy action of the brain and nervous system. Besides, the exercises of boating and ball-playing become at times so violent and protracted, as to cause such a congested state of blood in the vital organs, or strain upon the heart and lungs, as to result in serious diseases, and to endanger life. Then these exercises can be carried on only by a few individuals, in pleasant weather and at particular seasons—circumstances which render them unpropitious to the student.

With gymnastics it is very different. These can be carried on daily and systematically by all, with little loss of time, or risk of injury of person or to good morals. They can be so varied as to call into exercise every muscle of the body, and, if need be, strengthen the weak parts and repress those in excess. While they are calculated to improve the general health, by producing a well-balanced organisation, they aim to bring all

the physical forces of the system into the most favourable condition for study and mental improvement. They tend to bring about the greatest possible harmony of action in every part, especially between the physical and mental, so that the machinery of both body and mind shall work to the best advantage, and for the longest time. It is in this balance of organisation, this harmony of action in the vital forces, that the secret of good health and long life consists.

We all know what a wonderful difference there is between two machines,—one that is perfect throughout, and another, poorly constructed and ill-balanced. The one seldom needs repairs; the other, frequently; the one will last, as it were, for an age; the other soon breaks down, and becomes comparatively useless. It is somewhat so in reference to the human body. The idea which we wish to convey may, perhaps, be more aptly illustrated in the story of the Deacon's "One Hoss Shay," which must be familiar to all. Now, while we cannot make new bodies or parts, we can do wonders for their preservation, by striving constantly to produce in every part of the system a harmony of development, of action and function, so that the "wear and tear" of life may come upon all portions more equally. By this means much suffering and disease may not only be prevented, but life itself greatly prolonged. Thus in the duration and termination of life these bodies, when the time comes, will fall to pieces at once—every part literally worn-out—like the Deacon's Shay, which was just one hundred years old!

CASE OF HOMICIDAL INSANITY.

Our attention has been called to certain statements made by Dr. Davey as to the action of the Commissioners in Lunacy in the case of J. P., mentioned in his paper, "Reminiscences of Lunacy Practice," which appeared in the last number of this Journal. Some explanation of the statements made appears requisite, and we therefore revert to the case.

Speaking of the case of Dr. Pownall, who shortly after his discharge from Northwoods murdered a servant-maid, Dr. Davey says: "Though it was given in evidence that J. P. was, to all appearance, quite well within a few hours of the sad and fatal casualty, yet was the whole of the blame sought to be attached to it visited on myself. The responsibility was shirked by all parties who had to do with J. P.—by the relatives and near friends, who resisted the employment of an attendant, and who moreover supplied J. P. with his razors; by the Commissioners, who, after the murder of the poor girl, raised a strong objection to the manner and circumstances of J. P.'s discharge; and by the Visitors, who declined to move in the case in any way, either before or after his discharge from Northwoods, though they failed not to give expression to very unqualified terms of disapproval after the sad event."

This unfortunate case is noticed fully in the 14th Report of the Commissioners in Lunacy (1860).

Dr. Pownall had suffered from various attacks of mania between the years 1839 and 1859, in which latter year he was admitted as an inmate of Northwoods Asylum, suffering from well-marked homicidal insanity. Two months after his admission into Dr. Davey's Asylum, Dr. Pownall had so far temporarily improved, that intimation was forwarded by Dr. Davey to Mrs. Pownall, informing her that it would be desirable for arrangements to be made in anticipation of Dr. Pownall's return home. Mrs. Pownall, in reply, stated that she could not do so without first consulting her relatives and friends, and instructed a connection of hers (a Mr. Ogilvie, of Bristol), to communicate with the Commissioners on the subject. A written statement, drawn up by Mrs. Pownall, was at the same time forwarded to them, recounting the previous history of the patient, and the circumstances under which he was sent to Northwoods. The Board, having these communications and history of the case

thus fully placed before them, instructed their secretary to write to Dr. Davey on the matter, and enclose the communications from Mrs. Pownall and Mr. Ogilvie. The letter received by Dr. Davey from the Commissioners was as follows:—

“Office of Commissioners of Lunacy.

“19 Whitehall Place, S.W.,

“4th June, 1859.

“Sir,—The Commissioners have had under consideration the case of Dr. Pownall, a patient at Northwoods, and have received two communications from Mr. Ogilvie, and a statement drawn up by the wife of the patient, which I am directed to enclose, with a request that, as they are original, they may be returned to me when done with.

“The Commissioners desire that you will have the goodness to lay these papers before the Visitors of Northwoods at the earliest opportunity. They consider Dr. Pownall's case to be one of much importance, requiring, from its antecedents, peculiar caution and care in dealing with it; and having regard to those antecedent circumstances, not referred to in Mrs. Pownall's statement—but which they will in confidence communicate for the information of the Visitors, should they require such knowledge for their guidance—the Commissioners see much danger in an immediate or unconditional discharge. They are of opinion that such discharge should be preceded by a leave of absence under the 86th section of the Act, whereby the patient's power of self-control may be tested for some little time.

“I am instructed to request, therefore, that as soon as you shall have brought the case before the Visitors of Northwoods, you will have the goodness to communicate the results to this Board.

“I am, &c.

(Signed)

“JOHN FORSTER, Secretary.

“Dr. Davey, Northwoods.”

This letter clearly shows that the Commissioners were of opinion that an immediate or *unconditional* discharge was very hazardous, and advised that the discharge should be preceded by leave of absence under certificates, so enabling those who were to have charge of the patient to do so legally, and under proper surveillance and restraint. This proves conclusively, to our mind, that no blame could rightly be attached to the Commissioners in Lunacy, who used every precaution in the case to

prevent what they feared might ensue from allowing an unconditional discharge.

The Commissioners, regarding the gravity of the case, departed from their usual course, and furnished the Visitors with particulars of the attacks.

The history may be summed up as follows:—The patient had been confined as a lunatic, in 1839 and 1840, at Fishponds and Northwoods; but his mental condition was specially brought under the notice of the Commissioners in 1854, by the Rev. Mr. Guthrie, vicar of Calne, one of the visitors of a licensed house at Calne, of which Dr. Pownall was proprietor. In consequence of his having made a violent attack upon one of his patients, he was forthwith sent to Munster House, Fulham, and was reported as being “dangerous to others.” After having remained there three weeks he was discharged “recovered,” and returned home.

Three weeks after his return home he shot one of his patients in the leg, and four days afterwards he was again placed in Munster House Asylum and reported as being “suicidal and dangerous to others.” A few weeks after this he was transferred to Sussex House, Hammersmith, and discharged three months after this, “*not improved*.” In January 1859 he became again depressed, and in March of that year he attempted suicide by taking chloroform. On April 1st he made a murderous attack upon his mother-in-law, and very nearly effected his purpose. On the following day he was again admitted into Northwoods.

These facts were transmitted by the Commissioners to the Visitors on June 24, but notwithstanding they were made cognisant of all particulars, they made the following statement in their official books: “That they consider that the present movement of the Commissioners has evidently arisen entirely at the instigation of Mr. Ogilvie, any statement by whom it behoves the Visitors to receive with great caution.” By this entry the opinion entertained by the Visitors was, that it was in consequence of a quarrel between the patient and Mr. Ogilvie that he was confined. It appears to us an extraordinary proceeding of the Visitors, after hearing all the particulars of this dangerous homicidal lunatic.

On August 10 Dr. Pownall was *unconditionally* discharged from Northwoods *recovered*, on the authority of his wife, and sent to a medical man's house. On the 30th he murdered a

servant-maid by cutting her throat with a razor. It appears to us that in this case, if the cautions and suggestions made by the Commissioners had been properly attended to, such a frightful calamity might have been avoided. The medical man in whose house Dr. Pownall lodged was never informed of the previous homicidal and suicidal tendencies of the patient, and the attendant stated that his accompanying Dr. Pownall was a mere form, as he had been discharged as a sane man, and that he was not intended to have any authority or control over him.

This, then, is the history of the case; and from a careful examination of the facts before us, we feel it our duty to state that the unconditional discharge of Dr. Pownall was *strenuously* opposed by the Commissioners, and in no way can they be held responsible for what ensued, especially as their instructions were not carried out. They gave proper cautionary advice for the management of the case, not only to Dr. Davey, but to the Visitors; but we cannot exonerate the latter from blame in the matter, as they evidently regarded the case in a wrong light; and if they had only acted in conjunction with the Commissioners, and agreed to their recommendation, all harm might have been prevented.

HEREDITARY DISEASE.

[The Editor is indebted to Mr. T. W. Nunn for the following interesting cases, which strongly corroborate Dr. Winn's theory of the interchangeableness of all hereditary diseases:—

In the family of M. one died insane, two are in asylums, another, although not in confinement, borders on insanity. The remaining two are dead—one (a sister) died of cancer. The eldest brother (now dead) married. He left six children—3 sons and 3 daughters. Two of the daughters died of consumption at about twenty years of age. The remaining daughter is delicate; the sons all well, and no symptoms of insanity have appeared amongst them.

Mrs. B. had five children, and has been for nearly forty years insane. One of her sons died in childhood; her three daughters of consumption, and one son remains in good health.]

REVIEWS.

The Physiological Laws of Human Increase. By NATHAN ALLEN, M.D. of Lowell, Mass. Philadelphia : Collins, 705 Jane Street.

This treatise is a reprint from the "Transactions of the American Medical Association." In it Dr. Allen enunciates what he terms a new physiological law of human increase, which is based, he says, "UPON A PERFECT DEVELOPMENT OF ALL THE ORGANS IN THE HUMAN BODY, SO THAT THERE SHALL BE A PERFECT HARMONY IN THE PERFORMANCE OF ALL THEIR RESPECTIVE FUNCTIONS. *It presupposes other conditions are favourable, such as the age, union, and adaptation of the married parties—provided no laws of nature are violated or interfered with—that there will uniformly be found, with such a standard of organisation, not only the greatest number of children, but they will be found endowed with the highest amount of physical vigour, strength, and health.*"

If this law be confirmed by further researches, and verified by experience, it is not possible to estimate its importance too highly. That Dr. Allen has strong grounds for his theory will be evident from the following extracts from his valuable paper:—

"The theory, however, which we advocate has its base simply upon that organisation of man which came perfect from the hands of his Maker, and was pronounced very good; and when man was commanded to 'be fruitful and multiply, and replenish the earth, and subdue it.' But he, by his course of disobedience and rebellion, lost not only the moral image and likeness of his Creator, but that harmony and perfection in his physical organisation, which he has never yet regained.

"A distinguished writer upon Anthropology makes this curious remark: 'As giants and dwarfs are rarely prolific, so men of prodigiously large or small intellectual powers may be expected to be deficient in fertility.' Both these statements are undoubtedly true, and find a rational explanation by means of this law; but upon what other hypothesis can such phenomena be accounted for, or the following facts be explained? It is the opinion of some leading writers upon Insanity that the insane, as a class, are not prolific, and if left to intermarry among themselves, they would soon run out. The same remark, we believe, will hold good when applied to the blind as a class; also to the deaf and dumb, and the idiotic. There may be found among these classes cases where individual families are respectable in size, but they are exceptions to the general rule. All these classes, we believe, should they marry exclusively among themselves, if they did not run out in the course of a few generations, will not multiply to any great extent. It would seem as though Infinite Wisdom had devised in some way that all such abnormal characters should not long, or upon a

large scale, be propagated, but that they must, by the very conditions of their existence, tend to extinction."

The next extract gives a melancholy account of the physical condition of American women. We fear his observations are equally applicable to our own countrywomen, especially in London:—

"But there is another point of observation which is more tangible and conclusive in its evidence. If the conformation of woman were what it should be for the best propagation of the species, it presupposes her ability to furnish a suitable supply of wholesome nutriment for her offspring. This was the case with nearly all the first settlers in our country, and is very generally so now with the German, the English, the Scotch, and the Irish women. But what a contrast in this respect is presented by our native American women—especially in New England! It is thought by some very competent observers that more than one-half of our American women are obliged to resort to the bottle for nursing their offspring, and the number of this class is every year increasing. In most of these cases it is not a matter of choice, but of necessity. There is a great deficiency in the vital temperament; and the mammary glands are found very small, and in some instances almost entirely wanting. Besides, in all these cases the nervous temperament is altogether too predominant and too active, so much so as to require an undue proportion of the nutrition of the body. It is certain that the physical development of all these cases differs very materially from the physiological standard upon which the true law of increase is based. In confirmation of our statement respecting the large number of women unable to nurse their offspring, we here present the answer to an inquiry made of a manufacturer of a new and high-priced nursing-bottle, who in such a matter was a most competent judge: his sales for the last year, he replied, amounted to '*five hundred gross,*' and in his judgment the sale of nursing-bottles in the United States must amount yearly to not less than '*fifty thousand gross.*' What a contrast do these facts present in the sale and use of this article, as compared with the same fifty or one hundred years ago, when nursing-bottles were but little known! Do not such facts argue some change not only in the disposition but in the physical organisation of woman?"

We recommend the whole of this treatise for careful perusal; it will be found of equal interest to the medical philosopher and the political economist.

Christian Psychology: a new Translation of Swedenborg's Tractate "de Commercio Animæ et Corporis," with Preface and Illustrative Notes. By T. M. GORMAN, M.A., Hertford College, Oxford. London: Longman, Green, Reader, & Dyer, Paternoster Row, 1875.

Swedenborg's tractate forms but a small portion of this work. Three-fourths of it are occupied with a voluminous appendix and notes, which reflect great credit on the editor's learning and research. The appearance of the book has given rise to a great deal of sharp

criticism. Some have denounced Swedenborg as an impostor; others have regarded him as a madman. Impostor he was not; but that there were times when his overwrought mind made him the subject of hallucinations, we cannot doubt. But this may be said of many a genius—Robert Hall, Cowper, and Charles Lamb. There were periods when the brightness of their intellects was obscured by mental aberrations, but who would desire to make their morbid imaginings the subject of special and lengthened comment! It is with the operations of Swedenborg's mind, in its healthy action and in its greatest vigour, that we desire now to speak. He was not a mere visionary, as some would have us believe, but a man of high scientific attainments, and he possessed in a remarkable degree that "clear-judging tact which anticipates experience." The *Saturday Review*, in an article of the 11th May, 1867, from which we give the following extract, fully corroborates this view of his mental powers:—"In his grasp of philosophical principles, and his insight into the leading truths of physics, Swedenborg was clearly in advance of most men of his time. And in certain special departments, especially that of metallurgy, his practical knowledge has scarcely been surpassed in our own day. The chapters on the conversion of iron into steel were incorporated into the magnificent 'Description des Arts et Metiers' as having been spoken of by Cramer and Dr. Percy as forming a landmark in the history of metallurgy. . . . It was in his views of magnetism that he came nearest to the conceptions of our day. It was already clear to him that heat, light, and electricity were but modifications of one element—the magnetic—which filled all space, and was the impelling principle resident in all cosmical bodies."

We entirely agree with Mr. Gorman, that Swedenborg was an earnest and truthful man; but few will probably go the length he does, in believing that Swedenborg possessed the power of direct communication with the unseen world.

Long before Mr. Gorman's book was published, the character and writings of Swedenborg had been fully discussed in this journal. The following remarks appeared in the *Journal of Psychological Medicine*, in the number for October, 1861:—

"In the whole range of modern biography there is no life of greater interest to the medico-psychologist than that of Emanuel Swedenborg. His writings constitute a splendid monument of the extraordinary intellectual powers, the untiring assiduity, and (apart from all considerations of the ultimate results to which this fervour led him) the lofty religious fervour of the man. As a philosopher he will always occupy a conspicuous and honourable position in the history of modern philosophy; and as a theologian, he gave birth to one of the most remarkable developments of Christianity in recent times. From the beginning, his religious feelings entered largely into his philosophical speculations, and constituted an essential portion of them. He held, indeed, that religion was necessary to the perfection of philosophy, and that philosophy divorced from religion was a dead letter. With him philosophy and revelation were fundamentally one and the same.

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"To say that Swedenborg was a lunatic, is to use a term which conveys to a vast majority of persons the notion of entire lack of reason, and, so far as applied to Swedenborg, would give rise to a false impression. Swedenborg was subject to hallucinations, and these hallucinations influenced his thoughts and governed his conduct for many years. Hallucinations which are not recognised as such are incompatible with sound reason; but it does not follow that this defect of reason should be manifested except in connection with the hallucinations with which it is allied, or the train of thought immediately dependent upon or arising out of the hallucinations."

We cannot but admire Mr. Gorman's manly defence of Swedenborg's character against the aspersions which have been thrown on his honesty, and the petty ridicule with which his speculations have been treated by his materialistic opponents.

On Overwork and Premature Mental Decay: its Treatment.
By C. H. F. ROUTH, M.D., M.R.C.P. London: Baillière, Tindall, & Cox, 1876.

Although some doubt the fact as to whether insanity is on the increase or not, there cannot be a question that the fierce struggle in the present day for distinction and pre-eminence among all classes, and the modern system of competitive examination for public appointments, have been fertile sources of brain-disease; and everyone must admit the truth of what Dr. Routh has said on this vital subject in his valuable treatise on "Overwork." He observes:—

"If one of our ancestors but of one hundred years ago were suddenly resuscitated, and made to undergo the toil and mental labour of our days, he could not endure it. The life of an intellectual man who would keep on a level with his compeers of the present day would be equivalent to, at least, a dozen lives of a former age.

"In our own profession competition is carried to a fearful extent. Formerly a young man had to pass through a very limited groove. Medical men were few and far between. Competitive examinations were unheard of. Examinations for degrees and diplomas required but a minimum of knowledge. It is within the memory of some of the profession even now, that a student might become a surgeon after one year's study, and many others became general practitioners, before 1815, without any examination whatsoever. Places of trust in our hospitals were often family sinecures. India assistant-surgeons were reserved only for those who had friends in office. I well remember the time when two young men in a college, notorious only for their very unfrequent attendance on lectures and their anything but temperate habits, after three months' cramming, passed the Royal College of Surgeons, were appointed Indian assistant-surgeons, and sent to minister to our brave troops in that Empire. But now how different the state of things! A man *must* know his subjects to pass. Five years of study and hospital practice, at least, are required, and many appointments are open to honourable competition. The modern system of competitive examination is no doubt an improvement on that

of former days, when interest alone determined the election of a candidate. Nevertheless, we think it could be clearly demonstrated that, in many instances, it not only fails to secure the best man for the public service, but that it frequently operates unjustly towards a rejected candidate. We once heard the head-master of one of our first collegiate schools remark that his best boys—both mentally and morally—were not those who generally succeeded at competitive examinations. Is it not reasonable to infer that the system wants remodelling? ”

Dr. Routh well describes the premonitory symptoms of premature mental decay from overwork. He observes:—

“Let us now consider what are the evidences of premature mental decay from overwork. They are, in fact, the general symptoms of exhausted nervous power—viz., general debility of the body, inability to walk even short distances without fatigue, general feeling of languor, unwillingness to any active exertion; great tendency to sweat, specially at night, but induced during the day by the slightest exertion; generally an unsteady gait. The heart's action is weak, often irregular, accompanied with palpitation, and not unfrequently with symptoms of general indigestion.

“A change is gradually observed to come over the *man's mind*; and, generally, some peculiarity develops itself in the character, not previously noticeable in the affected person. It is not unusual in such cases to find an undue exaltation of some peculiar talent or property of the mind in a different direction, or one totally opposed to former hobbies; and what strikes one more than anything in these changes is the suddenness with which these hobbies spring up.

“A man may become intensely selfish and garrulous who was formerly generous and reticent. He takes, without any apparent reason, likes and dislikes to those with whom he is associated, often his nearest relatives, whose motives he invariably misunderstands. He becomes subject to uncontrollable fits of moroseness or bad temper. A previously careful man becomes unusually liberal, even extravagant; a remarkably modest and prudent man puts off all reserve, and becomes intensely disagreeable in genteel society: a dull man becomes a poet; a deep, far-sighted politician will become a religious controversialist; a man who, perhaps, never turned a note of music correctly becomes a devotee to music. Sometimes the very *morale* of the mind is changed. For instance, there is an alternation in his manner of acting—one moment intensely joyous and excited, now greatly depressed—one moment friendly, the next hostile. Sometimes obstinacy develops itself to an intense degree, and nothing will move his determination: at another time he can be led as a child. Sometimes it is indecision of character, or in his opinions, which forms the prominent symptom, often the more remarkable because occurring in one heretofore known to be ever ready and resolute. Frequently there is an utter inability to fix the attention on any one subject. In reading, the thread of the story or argument cannot be long followed. Again, sometimes not only is there an entire inability to arrange ideas in order, but the judgment is strangely perverted.”

Dr. Routh gives the following touching account of an interview he had with the late Dr. Golding Bird—one of the victims of overwork—a few weeks before his death:—

"I well remember a conversation I had with the late Dr. Golding Bird a few weeks before his death. He was then in the zenith of his popularity, and recognised by all as one of the ablest of our London physicians. I called upon him one morning with a relative to consult him. Several other medical men had preceded me. His rooms were full, and I had to wait three hours ere I could obtain admission into his study and consult about the case. I congratulated him on his success in practice. 'Yes,' he said to me, 'you are right; but I wish, nevertheless, to make your remark a text for a little parting advice. You see me, at little over forty, in full practice, my rooms full. I am making my several thousands per annum'—I think he said seven—'and, if I die to-morrow, I do not leave as many hundreds to my family. All this I have done by sheer perseverance, increasing hard work, and no holiday. But I am to-day a wreck. I have fatal disease of the heart. I know I cannot live many months—the result of anxiety and hard work; and my parting words of advice to you are these: *Coûte qui coûte*, and—never mind at what loss—take your six weeks' holiday. It may delay your success, but it will insure its development; otherwise you will find yourself at my age a prosperous practitioner, but a dying old man.' Six weeks after this conversation he had put off his earthly tabernacle."

Dr. Routh's views on the moral and physical treatment of the victims of overwork are very valuable; but we cannot endorse all he says on the efficacy of phosphorus, though we are quite in accord with him as to the value of a fish-diet in these cases. Dr. Winn published an article in the *British Medical Journal*, September 28, 1872, entitled "Training for the Tripes," in which he advocates the utility of a fish-diet. Dr. Winn observed:—

"There is a common saying that fish feeds the brain, which may depend on the phosphorus it contains. Certainly, there can be no doubt that some sorts of fish, such as soles, whiting, plaice, &c., are peculiarly suitable to a weak digestion."

Dr. Routh's book is very instructive and well worthy of perusal.

Mind: a Quarterly Review of Psychology and Philosophy. No. 1.
Edited by GEORGE CROOM ROBERTSON, M.A. London.

It is not usually the custom for one journal to review another, but in justice to ourselves, we feel bound to make a few remarks on *Mind*, as the editor, in his preface, has made a glaringly erroneous statement, which we must positively and emphatically contradict. He says:—"The first English journal devoted to Psychology and Philosophy, *Mind*, appears in circumstances that call for some remark. *That no such journal should hitherto have existed is hardly surprising.*" Now, the first number of the "Journal of Psychological Medicine," under the editorship of Dr. Forbes Winslow, appeared as far back as January 1st, 1848, and in that journal numerous articles have from time to time been published, on philosophical and psychological subjects, precisely of the same character as those to which *Mind* is to be devoted. We will give a list of a few, and only a few, of the numerous critical disquisitions on philo-

sophical subjects which have appeared in it, in order to prove how completely the editor of *Mind* is mistaken :—

April, 1858. "Mind and Body," by Robert Jameson, M.D.

July, 1858. "Psychology of Kant," by Professor Hoppus.

January, 1859. Ditto. ditto.

July, 1859. "Sir Wm. Hamilton's Lectures on Metaphysics."

April, 1860. "Bain's Psychology."

July, 1863. "On the Law of Certainty," by the Rev. W. G. Davies.

But, setting aside entirely all personal feeling on the subject, we cannot congratulate the editor of *Mind* on the originality or brilliancy of the articles. They are little more than a *rechauffé* of the dangerous dogmas of the modern materialistic school of philosophy, which has led its admirers to imagine that the use of obscure pedantic phraseology is adding to our knowledge of the operations of the human mind. Here is one specimen of the style, in one of the articles on the "Theory of Evolution":—"Shall we say that progress consists in increasing complexity of organisation, or (to use Mr. Spencer's more precise phrase) in more and more *definite coherent heterogeneity* of changes in the living being correspondent to changes in its environment?" From all we glean from the first number of the journal, we think it might as well be called *Matter as Mind*.

The notes of new foreign works at the end of the journal are very useful in showing what our Continental neighbours are doing in the fields of Psychology and Physiology.

On Pigmentary Deposits in the Brain resulting from Malarial Poisoning. By WILLIAM A. HAMMOND, M.D., Professor of Diseases of the Mind and Nervous System in the University of the City of New York, etc.

The object of the author is to call attention to a condition of the brain resulting from malarial fevers. This is stated to be a deposition of pigment in the organ, either in the form of emboli or thrombi, but as a contradistinction to the form usually denominated under the name of "embolism." After an elaborate discussion upon what was known of the occurrence of pigment-cells in the blood, and their deposition in the various organs, as the spleen, liver, and brain, until within the last fifteen years, and in which the names of such distinguished pathologists as Virchow, Bright, Frerichs, and Stietel conspicuously figure, our attention is called to a number of the most interesting cases taking place within the author's own experience. Dr. Hammond states that many years ago he noticed that several persons residing in malarious districts, who had been the subjects of repeated attacks of endemic fever, and were at the same time suffering from enlargement of the spleen, exhibited evidences of cerebral disease—such as epileptic convulsions, frequent attacks of vertigo, impairment of sight, and loss of mobility in one or other side of the body; and, in many cases, upon ophthalmoscopic examination, the existence of double optic neuritis with pigmentary deposits was clearly established.

This highly instructive pamphlet, which is well worthy of a careful perusal, terminates with the following conclusions:—

1st. That as a consequence of malarial poisoning, the pigment of the blood undergoes a change in appearance and form, and that the alteration is effected in the spleen, leading to hypertrophy of this organ.

2nd. That this pigment may enter the general circulation from the spleen, either in a free condition, or in pigment-holding cells, and that it may be deposited in the cerebral bloodvessels, or pass through their coats.

3rd. That these deposits may give rise to various symptoms, indicating derangement of the nervous system.

4th. That arsenic appears to have the power of, in a way at present unknown, so altering the character of the pigmentary deposits as to facilitate their removal, and to cause the disappearance of the symptoms to which they give rise.

5th. That we may have, during the life of the individual, ocular demonstration of these facts by the presence of pigments in the fundus of the eye, as revealed by the ophthalmoscope.

Insanity: its Etiology, Diagnosis, Pathology, and Treatment, with Cases illustrating Pathology, Morbid Histology, and Treatment. By EDWARD C. MAXX, M.D., Medical Superintendent of State Emigrant Insane Asylum, Ward's Island, New York.

This is an admirable retrospect of the subject from the time of Hippocrates up to the present. We are reminded of the old classification into *Furiosi*, and *Mente Capti*, and the following divisions:—

- I. Idiocy.
- II. Dementia.
- III. Delusional Insanity.
- IV. Emotional Insanity.
- V. Mania.

During the past twenty years, it appears that in America the increase of insanity has been considerably disproportionate to the increased population. This is supposed to be due to neglect of physical exercise in consequence of educational pressure, to artificial habits of living, competition in business, etc. It would seem also that this insanity is appearing at an earlier age than formerly. With regard to the predisposing causes, the first is hereditary predisposition. During twenty-seven years, at the New York Asylum, this was traceable in 31 per cent. of all admissions. Morbid impulses and insane traits may not appear in the second generation, and reappear with renewed vigour in the third. Insanity may assume a different form in succeeding generations. Thus, a parent may be maniacal, and the child be afflicted with chorea or epilepsy. Amongst other predisposing causes may be instanced great disparity of age between parents, influence of sex, emotions during gestation, epilepsy, lactation, menstruation, general excess, and onanism.

Among exciting causes may be mentioned, excessive grief, intemperance, any kind of excessive excitement, epilepsy, injuries to head or spine, and overwork. Intemperance appears to exert a very powerful influence upon the production of insanity. Lord Shaftesbury was of opinion that, in 1859, 50 per cent. of the admissions into English asylums were the subjects of excessive drinking. In many foreign asylums the percentage is stated to be 25, or higher. Dr. Mann has traced intemperance as a cause in many cases of general paralysis, and M. Lanier considers that 50 per cent. of all idiots and imbeciles in the large cities of Europe have been the children of notorious drunkards. At Charenton, in Europe, drink was considered as the cause of insanity in 102 out of 350 patients. Three forms of insanity from alcoholic abuse may be said to exist, viz.:—1. Delirium tremens, or mania a potu; 2. Dipsomania; and 3. Chronic alcoholism. The first is an acute and temporary mental affection; the second, an irresistible impulse and craving for alcoholic stimulation; the third, a peculiar form of chronic insanity. With regard to the diagnosis of insanity, we find some valuable hints. We “must examine physical signs and symptoms, and determine by our senses the existence of such diseases.” Previous to seeing our patient, we should find out all we can from the friends, allowing for information concerning hereditary predisposition, for many will deny any pre-existing insanity, unwisely looking upon the same as a disgrace. The patient’s confidence should, if possible, be gained, and enquiry be made with respect to vocation, habits, &c., whether there have been any injuries to head or spine, sunstroke, &c. The nervous system should be examined for the presence of paralysis, epilepsy, catalepsy, hysteria, &c. Then we must look to the senses, such as sight, hearing, smell, and touch.

Most fearful crimes have been perpetrated by those who previously have been looked upon as harmless patients. How important then is the responsibility of advising that a patient should be kept at home! In criminal cases it is most important to bear in mind that, because his ancestors have been insane, a man is not necessarily irresponsible for the crimes he commits. Sometimes the diagnosis of insanity is very easy. A person previously of moral habits, industrious, and affectionate, becomes immoral, his affections alienated, his business neglected, but the prognosis of insanity is very difficult to determine. The most unlikely cases are those in which the insane diathesis is clearly established, or in cases of imbecility, dementia, general paralysis, and epileptic insanity. Acute mania, acute melancholia, hysterical insanity, and puerperal insanity not unfrequently recover.

The pathology of insanity is at present in its infancy, but microscopical examination of the brain has afforded much valuable information.

M. Paccchaffe, Inspector-General of Asylums in France, informs us that the pathological changes found in the brain in insanity may be divided into three classes:—

1. Those which may be considered accidental—viz., cerebral hæmorrhages, softening of white substance, and disease of cerebral arteries.
2. Those found in other diseases, but appear to be concerned in producing insanity—viz., thickening and opacity of arachnoid, hyperæmia of pia mater, and collections of fluid in arachnoid cavity.

3. Those essential to mental disease, viz., subarachnoid ecchymosis, punctiform injection of cortical surface, with or without softening; extended softening of middle portion of cortical substance; adherence of pia mater to surface of the brain; various discolourations of cortical substance; atrophy of convolutions; and induration of brain. Histological investigations reveal that although the dura mater is rarely thickened, irregularity and dilatation of its vessels exist, whilst fine granulations have been perceived upon the arachnoid. In the neuroglia grey degeneration, atrophy, and colloid degeneration have been found. The cells have been the seat of atrophy, pigmentary and granular degeneration, calcification, and hypertrophy.

A number of cases illustrative of the pathology and morbid histology of insanity are presented to us in this admirable treatise, among which may be instanced those of melancholia, dementia, and acute mania, bearing out upon post-mortem examination the remarks before cited. With regard to the treatment of insanity, Dr. Mann calls attention to the fact of the foolishness of friends and relatives at first keeping secret the fact of the patient's insanity, and thus depriving him or her of speedy relief, and in many cases cure. He also shows, by some carefully-considered statistics, the pecuniary benefits accruing from early recovery, when the malady has been encountered at its onset. Allusion is made to the cruel treatment of the insane in times past, and the remarkable contrast at the present date, when kindness and diversion of mind constitute the most successful modes of cure. Amongst therapeutical agents the most effectual are opium, in large doses, and hydrate of chloral, especially as narcotics. We quite agree with the author that the combination of opium with the chloral hydrate is far preferable to either administered singly. Dr. Brown-Séquard some years ago found that ergot was very valuable in some cases of insanity, and the writer of the work before us quotes a number of cases in which this drug proved of immense value. The dose given should be 5j of the liquid extract. The cases in which it is specially applicable are chronic mania with lucid intervals, recurrent mania, and epileptic mania.

Dr. Mann concludes this interesting discourse by giving numerous cases illustrative of the treatment of the insane, therapeutically and otherwise: and we hope we may have many future communications from the same source.

*Leçons Cliniques sur les Maladies Mentales Professées à la Salpêtrière.**
Par le Docteur Auguste Voisin, Médecin de la Salpêtrière.

THESE pages represent the different courses of lectures delivered since the year 1867 by Dr. Voisin at the Salpêtrière, which, as is well known, is the great receptacle for female lunatics in Paris. The lectures are chiefly devoted to the classification of the different forms of insanity and the description of the alterations of the cerebral cellules; to the differences

* *Clinical Lectures on Mental Diseases delivered at the Salpêtrière.* By Dr. Auguste Voisin, Physician to the Salpêtrière, pp. 196. Paris, Baillière, 1876.

existing between the congestive form of insanity and general paralysis; and the varieties found in the chemical composition of the cerebral structure. Dr. Voisin treats in succession of insanity caused by anæmia and by arterial atheroma; of a form of posterior spinal meningitis which might be mistaken for sciatica; of the influence of lesions of the senses in producing illusions and hallucinations; of madness in early life; of madness caused by the siege of Paris and by the Commune; of tubercular insanity; and the final lectures are on acute and chronic alcoholism, and on the disturbances of speech observed in general paralysis.

In reference to the classification of insane cases, Dr. Voisin passes in review the existing systems of nosography, but only to condemn them, and he maintains that a true system of mental pathology can be constructed only by combining together etiology, pathogeny, clinical experience, and pathological anatomy. He is the more convinced that such is the true basis of classification because he has never made an autopsy of an insane patient without finding some cerebral or extra-cerebral lesions, some visible to the naked eye and others appreciable only by the microscope. Without the aid of the last-named instrument, he states, the brains, not only of lunatics, but of idiots, might be regarded as healthy; but under the microscope the lesions are quite perceptible, for there is usually an advanced fatty state of the greater part of the cerebral capillaries, and granular and fatty and pigmentary alterations of the cerebral cells. All the lesions he has observed in the brains of insane persons, up to the present time at least, may be thus summed up: (1) lesions of the capillaries, apoplexy and effusions of hematin and hematin in the lymphatic sheaths, dilatations of the capillaries, infarctus, and atheroma; (2) anæmia of the capillaries, diminution of the normal quantity of phosphorus in the cerebral substance; and (3) alterations of the ganglionic corpuscles, presenting several degrees, the first and most common lesion being an infiltration of pigment and of fat in the protoplasm, and then, in a more advanced stage, the pigment and the fat disappear, and the circumference of the corpuscle is seen to become shrivelled and to touch the nucleus, which was at first free. Other lesions, however, giving rise to insanity and of a more easily appreciable character, are often observed, as, for instance, congestions, tumours, hydatids, atheroma; or the brain may be anæmic; and in certain cases insanity appears to depend upon lesions of the organs of sense, as of sight and hearing.

As we are unable to follow Dr. Voisin at length into his interesting researches, we can only refer to some of his more striking descriptions and passages, among which are his remarks on the psychical influence of the siege of Paris and the subsequent reign of the Commune, his lectures on acute and chronic alcoholism, and his observations on the disturbances of speech in general paralysis.

In reference to the first-mentioned subject, Dr. Voisin remarks that, although most cases of insanity may be traced to hereditary predisposition or to idiosyncrasy, yet that the events of the Siege and of the Commune were so extraordinary and so dreadful as to be of themselves sufficient to cause insanity in persons who would have otherwise escaped the malady, and he relates several instances in proof of this position. When reading of the atrocities committed during the dread-

ful period referred to, an English reader might well imagine that only insanity could explain the horrible crimes perpetrated; and Dr. Voisin, without actually admitting so much, adduces an instance of a fiend in female human shape, admitted into the Salpêtrière, who either was insane, or had become so during the Commune, and who, under the influence of drink and fury, had committed the most horrible crimes of arson and murder, and who boasted of her deeds when in the hospital. She was (perhaps mercifully) carried off suddenly by meningeal hæmorrhage. In reference to the influence of drink in causing insanity, Dr. Voisin draws a melancholy picture of the present condition of the Parisian population in this particular. Eighteen years ago, he tells us, the cases of insanity from drink were less than half of those known at present, and he shows, by the evidence of figures, that the number of this class of insane patients at the Bicêtre in 1860 was more than double that of the cases in the same institution in 1856. It also appears, from the documents published daily by the municipal police, that every month in Paris nearly 300 persons, on the average, are confined for their personal safety, who have been found in the public streets incapable of taking care of themselves, and among them sixty, or nearly that number, are dead-drunk (*ivres-morts*). The consumption of alcohol in Paris has, we are also informed by Dr. Voisin, more than trebled during the last five years, and the drink most commonly consumed is absinthe. The author divides the alcoholic cases into two categories, namely, those who are not altogether sober in their habits, but are overtaken by temptation to great excess on some occasion; and the habitual drunkards who have had several attacks of delirium tremens.

The last section of Dr. Voisin's work, on the disturbances of speech in general paralysis, is exceedingly well and carefully written and will amply repay perusal. He describes, in the first place, the different conditions necessary for the production of articulate speech, the idea (*εἰδὼς*) being first formed in the brain, and being then conveyed, by means of the conducting nervous fibres, to the muscles and other organs by which articulation is effected. He then describes the different morbid conditions by which speech is either abolished or imperfectly developed; and the conclusions at which he arrives on the subject are that, in general paralysis, the morbid conditions of speech are slowness of utterance (*ἀνόνnement*, for which there is no equivalent single English word), drawling, hesitation, stuttering, stammering, trembling, and mutism; that the first three are caused by cerebral lesions, and the last three are the results of alterations in the medulla oblongata; and that mutism may be the consequence of cerebral lesions, and of lesions of the muscles and nerves of the tongue and the lips.

We regret that our space forbids us to do more than glance at the numerous subjects treated in this very useful contribution to psychological medicine, and we can only state, in conclusion, that the book shows throughout a profound knowledge of the subject of which it treats, and that the theoretical views are tested and illustrated by the practical lessons afforded by the great establishment over which Dr. Voisin now presides, and by the Bicêtre, with which he was also formerly connected.

PSYCHOLOGICAL RETROSPECT.

It is with extreme regret that we record the death of Mr. John Forster, one of the Honorary Commissioners in Lunacy. For many years he acted as one of the Visiting Commissioners, fulfilling the duties of his office in the most able manner, and winning the esteem and respect of all those who were fortunate enough to know him intimately.

A few years ago he resigned, in consequence of failing health, the post of Visiting Commissioner, and continued to devote his energies to the less arduous duties of Honorary Commissioner; this enabled him to employ his spare time in literary pursuits, and his two last works, the "Life of Charles Dickens" and the "Life of Dean Swift," will of themselves show what a loss the literary world has sustained in his death, and they will remain as standard English works on biography.

We announce with great satisfaction the appointment of Dr. Crichton Browne to the office of Lord Chancellor's Visitor of Lunatics, vacated by Dr. Bucknill in consequence of illness.

Dr. Crichton Browne is the son of Dr. Browne, of Crindan, Dumfries, formerly one of the Commissioners in Lunacy for Scotland, and one of our greatest living authorities in lunacy. For many years he superintended most efficiently the West Riding Asylum, Wakefield, Yorkshire, and inaugurated the "West Riding Asylum Reports," which, under his editorial bâton, has become an important work on insanity in England.

All those who have had an opportunity of studying under his careful tuition in the clinical wards of the asylum, or in the *post-mortem* room, bear testimony to the great benefit they have derived from his valuable assistance. By his resignation of the post of Superintendent, the patients lose a kind and skilful physician, and the students a friend whom it will not be easy to replace. His valuable contributions to psychological science are too well known to require comment; and those who know him can bear ample testimony to that combination of courtesy and business talent which eminently qualify him for the responsibilities of his new office.

SUICIDE OF A CIVIL ENGINEER.—Mr. Bedford held an inquest, at Charing Cross Hospital, on the body of Mr. Thomas Biddle Lloyd, aged 48, a civil engineer, of 6 Cecil Street, Strand, who was found in Northumberland Street, Strand, lying in the roadway, shot through the head. Mr.

Jenkins, solicitor, watched the case on the part of the family of the deceased. Mr. Henry John Lloyd, of Pontrilas, Hereford, said that the deceased was his brother, whom he last saw alive some time ago. Deceased had enjoyed good health until three years since, when he contracted a dangerous fever in Spain, from which he had never thoroughly recovered, his brain having become seriously affected thereby. He had not shown any actual signs of insanity, and it was never contemplated that he would raise his hand against his own life. Mr. John Marshall, of 10 Savile Row, W., professor of surgery at the University College Hospital, said that he had known deceased for very many years past, and had seen no decided symptoms of insanity. The serious effects of the fever caught in Spain caused his friends such alarm that witness, Mr. Dallas, and other gentlemen had made arrangements for deceased to proceed to the South of France, accompanied by a thoroughly qualified medical student, and the party were to have started to-day. Witness had no doubt whatever that the mind of deceased had become affected by ill-health, which had driven him to take his own life. By the Coroner: Had seen deceased whilst he lay in the hospital, when, in answer to inquiries why he shot himself, he replied "I could not help it." Dr. Canton, senior surgeon at the Charing Cross Hospital, said that the deceased had died from blood poisoning consequent upon the wound. He had made a *post-mortem* examination, and found the bullet firmly fixed in the bone of the skull. Mr. Marshall, recalled, said that the deceased had been connected with a mining company in Newfoundland, and his troubles with that company alone would be sufficient to drive him out of his mind. He need not say more, for it was useless dragging private matters before the public. The Coroner having summed up, the Jury returned a verdict of suicide whilst of unsound mind.

Too many persons suffering from mental depression are recommended to travel with students just fledged from an hospital. We are here told that arrangements had been made for the deceased to travel with a fully qualified student; this implies doubtless a fourth year's student, one just completing his curriculum, and probably ignorant of the rudiments of insanity. It would have been far better to have placed the lunatic under proper supervision and treatment—especially as, from the evidence given, he required it—rather than to allow him to become another victim to suicidal insanity, induced by the inability of his friends and acquaintances to realise his proper mental state.

ROMANTIC SUICIDE OF A PARSEE.—Mr. J. B. Edge, the district coroner, held an inquest at Halliwell, near Bolton, on the body of Mr. Dorabjee Hornusjee Dashai, a native of Bombay, who was found drowned in Brine Hey reservoir, Halliwell. The deceased, who was 21 years of age, and had been residing in Bolton about nine months for the purpose of acquiring a knowledge of cotton spinning machinery, left the house of the gentleman with whom he resided, a few days previous to the suicide, having for the previous few days been apparently unwell. As he did not return, however, his friends became anxious, and inquiries were instituted on all hands, but without success. until, as already intimated, his body was found in the reservoir, and by its appearance it had evidently been in the water some days. From information which has subsequently come to light, it seems that on the day following that on which he left home he went to Southport on a visit to a relative, and stayed there until Sunday, the 26th ult., when he wrote the subjoined letter to a young lady in Bolton to whom he had become attached:—

"September 26, 1875.

"My dear Nalie,—I hope you will excuse me for taking liberty for writing to you, but really I cannot help it, because I love you so much, and you must truly believe me that I never came across a young lady more lovely and more affectionate, like you, and I cannot forget you, and in my remembrance, I have sent you a little present, that you must except it, and Nalie do remember me after I dead and gone. You have longer time to live yet, but my time is very short, the reason is I was so full of thought about you that it drove me to this because I could not get a chance to speak to you, and I inquired about you privately, that it was impossible for me to have a chance, and therefore I could not rest, and it drove my mind away altogether, and I could not help it, but I meet you there if I don't see you here again. I hope you will be happy, but don't forget me, because I sacrifice my heart to you, dear. I always dreamed about you; I don't think you hardly believed it, that how I loved you, my dear; but I am at last disappointed. But never mind, it cannot be helped; but don't forget me, because you are the only I loved. I don't think you care much about me, but I did. Remember me, my dear, remember me. I hope you will be happy.—Yours truly,

"DORAE. DASHAL."

On the back was written, "Please don't show it to anybody." He returned to Bolton the same evening, after writing the above, and was in the company of friends until half-past ten o'clock at night, and from that time, with the exception of being noticed on the Monday forenoon going in the direction of the reservoir, he was not seen alive. So determined was he to put an end to himself, that he had fastened his hands behind him with his handkerchief. The Jury returned a verdict of Temporary Insanity.

The evidence in this case appears most unsatisfactory, no medical witnesses being called to testify as to his previous mental condition. It is desirable in all cases of suicide where doubt appears to exist as to the mental state of the deceased, that conclusive medical evidence should be produced, proving in some way or other the condition of the person.

SUICIDE OF A TURKISH BONDHOLDER.—Dr. Hardwicke, coroner for Central Middlesex, held an inquest at the Angel Hotel, Islington, as to the death of Mr. John Henry Miller, aged 69, a single gentleman, of 49A Pentonville Road, who is stated to have committed suicide in consequence of losses he has sustained as a Turkish bondholder. Miss Elizabeth Miller said she was niece to the deceased, who was by profession an engraver, but he had not followed it for some years, having property in the Funds and otherwise. He had been ailing and in a desponding state for some time, but more especially lately, on account of the repudiation of its liabilities by Turkey, as he was a considerable holder of Turkish bonds. On Sunday morning she was informed he had committed suicide. Mr. Philip King Weston, surgeon, of 39 City Road, stated that he was sent for about half-past ten o'clock on Sunday morning, and found deceased dead in bed. A handkerchief was tied round his neck, and it had been twisted from right to left by means of a razor strop acting as a lever, and inserted inside between the handkerchief and the neck, with such force as not only to produce strangulation, but to force blood from the nostrils. He was quite dead, and he had no doubt committed the act himself. He had attended the deceased from the 12th to the 23rd October, for debility, despondency, and sleeplessness. He did not see him after the latter date, but believed he had a suicidal tendency, and therefore warned his friends not to have him left alone. He had committed the act under the bedclothes. The landlord of

the house said deceased had resided with him 16 years. He had been very much cast down of late, and especially since the recent news as to the affairs of Turkey. During the last twelve months he had said he had more troubles upon him than he could bear, and wished himself out of the world. On Sunday, as he did not ring his bell as usual, witness's wife first went up, and on knocking at his door and receiving no answer, he (the landlord) went up and entered the bedroom, and seeing deceased dead, ran out and at once sent for the doctor. The Jury returned a verdict to the effect that the deceased committed suicide whilst in an unsound state of mind.

We here read of another lamentable suicide caused by the friends—though warned by their medical attendant—refusing to use the proper precautions. The evidence of the insanity is conclusive, and we cannot exonerate his immediate acquaintances from a grave responsibility in this case.

DISTRESSING SUICIDE.—Dr. Hardwicke, coroner for Central Middlesex, held an inquest at the Duke of Hamilton Tavern, New End, Hampstead, on the body of Mr. Cecil Ashton Henry Beecheno, aged 18, son of an estate agent, of 77 Belmont Street, Camden Town, whose body was found in the large pond in the Vale of Health, Hampstead Heath, on Sunday morning last. Deceased had been missing since the 27th of January last. He was a well-conducted young man, of a religious turn of mind, and was in the service of Messrs. Hachette, French publishers, of 18 King William Street, Strand, as a clerk or librarian, but had been anxious to enter the church. He was a constant attendant at St. Saviour's, South Hampstead, and was well acquainted with the Rev. J. C. Hose, the curate. When he left his office on the evening he was missed, it was observed that he wished one boy good night in a peculiar way, though he spoke to the other clerks in his usual manner. Amongst the things found in the possession of the deceased when his body was recovered was a letter addressed to the Rev. J. C. Hose, bearing written directions that it was to be opened by no one but that gentleman. That letter was produced in evidence, but not read to the Jury. The Coroner, however, stated that in it deceased intimated his intention of committing suicide, and desired certain things to be sent as mementoes to various clergymen. Mr. Hose said that some of these clergymen were almost perfect strangers to deceased. He (Mr. Hose) had received the letter, and it showed that the mind of deceased was unhinged. Mr. Beecheno said that in the letter his son accused himself of having been unkind to his youngest brother, whereas he was one of the kindest of brothers. Deceased was peculiar in regard to his food, and subsisted principally on bread and butter. The Jury returned a verdict of suicide whilst suffering from temporary insanity.

At Marylebone, a respectable-looking youth appeared before Mr. D'Eyncourt and asked him to make an order for his admission to a good lunatic asylum, as he had been going out of his mind for some time past. His parents had brought him home from school last Christmas, and since then he had broken some articles. Mr. D'Eyncourt asked him what he had broken, and if he had done it wilfully. He replied that he had broken a china teapot and a mousetrap, but had not done it on purpose. He could not hold anything, and he was not right in his mind. He had been going mad for some time. He had been working hard at school, and he was not able to bear it. He had tried to study, but could not, so he was in the habit of staring about the schoolroom instead of attending to his lessons. He could not get on, and he was punished in consequence. He had been

at school at Ashby, in Leicestershire. Mr. D'Eyncourt asked him how old he was, and he said 21. This caused some astonishment, as he appeared to be about 15 or 16. In answer to further questions he told the magistrate his father was Richard Thompson, of Nottingham Place, Marylebone, and although he was living with his father, he had not told him of his intention to make this application. He had overworked himself at school, and should be glad if he could be sent to a comfortable lunatic asylum, as he did not wish to go back to his studies. Mr. D'Eyncourt desired Mr. Stanley, the chief usher, to take the young man to his father's house and make inquiries. Later in the day Mr. Stanley said that he had taken the young man to the address he had given. His father said that his son did not wish to go back to school, and his applying to the magistrate was a *ruse*. He made some curious statements, and told his father that he wanted to be taken care of. Mr. D'Eyncourt made no comment, and the matter then dropped.

The result of the above inquiry appears to us very unsatisfactory. The boy doubtless feeling unwell, had informed his father of his symptoms but with no effect, and as a dernier ressort he had sought the aid of a magistrate. It would have been advisable for the magistrate to have insisted upon a proper mental examination of the boy instead of simply taking the father's evidence as to his son's condition, who was quite unfit to form a proper opinion. From a careful perusal of all points of this case, we think that further and more indirect evidence should have been taken. We do not go so far as to say the boy was a lunatic, but there was no conclusive evidence to the contrary, and in a case of such importance the greatest care should be bestowed in demanding an examination from a qualified and efficient specialist.

Among the things which they do *not* "manage better in France," lunatic asylums figure conspicuously. A few days ago a case was tried before the Correctional Police which in England would have created a storm of indignation throughout the length and breadth of the land, but has passed here without attracting notice. A more atrocious instance of unpunished murder it would be hard to find in the whole record of *causes célèbres*, and, indeed, it is difficult to say which is most scandalous, the sentence passed by the judges, the defence offered in behalf of the culprits by Dr. Legrand du Saule, the superintendent of the asylum, or the crime itself. The murdered man had been for a couple of years an inmate of the Bicêtre Asylum, and had grown from a harmless imbecile into a raving maniac, and it may be surmised that this was due to the treatment he received. In August last this unfortunate creature had a severe fit in his cell, and kept making a noise at night. His three keepers rushed into the cell, and as he was violent threw him down, knelt on his chest, and trampled upon him. After this process the patient was "more quiet," and the keepers were able to put a strait waistcoat upon him. In this strait waistcoat he was found dead next morning. A *post-mortem* examination disclosed the fact that *thirteen* of his ribs were broken, and the lungs perforated. Well, the case was reported to the authorities, and it was determined to prosecute them; but strangely enough it was decided not to try them before a jury for murder or manslaughter, but before the Court of Correctional Police for a "contravention," that is, a breach of the regulations. Dr. Legrand du Saule gave evidence in favour of his *employés*. This evidence is sufficiently remarkable to be noticed in some detail. These men, he said, were very hard worked, and they only received ten sous (i.e.,

fivepence) a day for their arduous work. There was a regulation, no doubt, that the keepers should not go into the cell of a violent lunatic, but then there was danger in doing so, and they could not resist *that* temptation. If they had—“*ils n'auraient pas été Français.*” There might have been some little violence (thirteen ribs broken!), but it was very difficult to deal with such cases, and the accused were men for whose general character he had the highest respect. The Court adopted M. Legrand du Saule's view of the case, and let off these exemplary Frenchmen with 100*l.* fine. Dr. Decaisne, in the *Univers Illustré*, commenting on this atrocious case, points out that the character of watchers, keepers, and attendants at lunatic asylums is as bad as can be. But it is not to be wondered at, when you look at their scale of pay. Superintendents, male and female, get 360*l.* a year—less than tenpence a day; deputy superintendents 250*l.* (10*l.*) a year, and *infirmiers*, i.e. the attendants, 300*l.* (12*l.*) a year; women in the same capacity only get 10*l.* The chief vice is drunkenness, and I am credibly informed that they are so eclectic as to their liquor that they even make free with the alcohol used for anatomical preparations. It is evident that abuses are going on in these establishments which would not be endured in England for a single day after such an exposure as that of the crime at Bicêtre described above.

It is disgraceful that in a civilised land like France the authorities should allow the murder of a lunatic to be perpetrated by two attendants, by the fracture of thirteen ribs, under the penalty of a fine of four pounds. The above description, taken from the *Standard*, admirably describes the case, and we quote it as an instance of what goes on at the present day in the public institutions in France, and with a nominal penalty.

HORRIBLE TRAGEDY AT MONTPELIER, SOUTH AFRICA.—Montpelier, yesterday morning, became the scene of a horrible tragedy, when, at about 8 o'clock, Mr. Auguste Titren, a well-known colonist residing at Montpelier, went into the kitchen where his wife was preparing breakfast, and shot her in the back. It appears that on entering the kitchen he told his wife (Mrs. Titren) that he was going for a walk. Mrs. Titren requested him not to do so until he had partaken of some breakfast. Titren then is said to have fetched a loaded gun, and entering the kitchen a second time, shot Mrs. Titren in the back; she immediately fell down. Mrs. Smith, the mother of Mrs. Titren, hearing the report of the gun, at once ran into the kitchen, and finding her daughter on the floor, with blood running from the wound, screamed for assistance, shouted murder, &c.; and although there was an adjoining house in which some people resided, yet no assistance came. She was endeavouring, as well as she could, to assist her daughter, and was stooping over her, when Titren again returned in an excited state. Mrs. Smith endeavoured to prevent him coming into the kitchen, but her efforts were of no avail. Succeeding in making his way into the kitchen he fired at Mrs. Titren again, and killed her. While Mrs. Smith was stooping down he also fired at her, and wounded her in the spine. By this time Mr. Sydney Turner and Mr. Hoffmann, junr., arrived, and entering the house intended to secure Titren, who immediately pointed his gun at them, when Hoffmann ran away; but Mr. Turner, who brought a revolver with him, had, in self-defence, to fire at Titren, who, in consequence, fell down mortally wounded, and died shortly afterwards. These are all the particulars that have been ascertained up to the present time. It is a most shocking affair, it being, however, supposed that Titren committed the act in a temporary fit of insanity. Mrs. Smith is to be brought to Durban for medical attendance, and hopes are

fortunately entertained of her recovery. Mr. Turner's intention was simply to disarm the deceased, and he had a narrow escape from being killed himself.

We have been favoured by a correspondent in Natal with the above particulars. We quote it, as it will show the frightful atrocities which a lunatic not under proper control and supervision may be capable of.

HOMICIDAL INSANITY IN AMERICA.—A horrible domestic tragedy is reported from the interior of the State of New York. Harrison Andrews, a man of 50, and of violent and ungovernable temper, who lived at Venice, near Auburn, early on the morning of September 12, went to the apartment where his son, aged 19, was sleeping, and as he lay in bed gave him two murderous blows on the head with a hatchet, crushing his skull and probably injuring the brain. Andrews then aroused his two daughters, and shot one of them through the abdomen, inflicting a severe wound. The girls escaped from the house and alarmed the neighbours, and in the meantime Andrews poured oil on the carpet, set fire to the house, and closed his terrible work by shooting himself through the head. The neighbours came and extinguished the fire before much damage was done, and the wounded son and daughter were cared for. The former can scarcely recover. The motive for the deed is unknown; it seems to have been an insane freak.

This is another instance of the murderous propensities of lunatics.

THE SHAKERS.—EXTRAORDINARY SCENE.—An extraordinary scene, amounting almost to a riot, took place at a meeting of the New Forest Shakers, at Exeter. Mrs. Girling was accompanied by eight young women and four men, and whilst she was in the midst of her address, one of the girls commenced to dance. This caused some excitement, as the dancing was prolonged, and was pronounced by Mrs. Girling to be due to religious influences. One of the audience got up and denounced the whole thing as a blasphemous farce. This expression was loudly cheered. Mrs. Girling invited anyone who wished to speak to come on the platform, and at last one gentleman went there. At the same moment another girl commenced to dance, and the excitement increased. The audience moved in a body to the platform, and a large number scaled it. Indescribable confusion followed, in the midst of which attempts were made to stop the girls, but they resisted, one of them shouting, "I will rejoice," and "Touch not the Lord's anointed." The male members of the community were remonstrated with for permitting such an exhibition, but they expressed themselves powerless to stop the dancing. The girls were at last forcibly stopped. Some one threatened to give one of the male Shakers a thrashing, upon which he commenced to dance, and the disturbance was only ended by the whole body of Shakers being forcibly ejected from the platform.

We think it quite time that some interference should be made by Government upon this infatuated community, and deal promptly with them. If these are delusions, let the victims of them be placed in asylums; if, on the other hand, the Shakers do this with intent of making a disturbance, let them be dealt with by law; but that such proceedings should be allowed in the nineteenth century unchecked appears to us to be disgraceful.

"It may seem strange to hear from me that a patient in this asylum has been subject to continuous mechanical restraint since April last, yet such is the case; and I think it right to bring the circumstance under which this has occurred prominently forward in my present report; the more so, as only in two instances since I have been here, now more than twenty-one years, have I had occasion to resort to restraint, and then only for a short time, on account of the homicidal propensities of a patient. The man whose case I now especially notice had been here but a few days when he made an attack on me during one of my visits to the wards, rushing at me from behind with an implement he had prepared for the purpose, the handle of a large iron spoon which he had converted into a kind of dagger, swearing he would take my life, and assigning as a reason 'that I had kept patients in the asylum for more than twenty years and had parted man and wife.' This man had previously been in the Middlesex County Asylum at Colney-Hatch, and it appears from his own confession that he had meditated an attack on the superintendent of that institution, had prepared for it, and had intended to carry it out the very day he was unexpectedly removed to Knowle. Now here were two deliberate plans arranged to take life, and in one instance the attempt was made. That the man knew what he was about was very evident from his own expressions, which were, 'I will kill you; I will bathe my garments in your blood; I am not mad, but being in an asylum I can do what I like, and am not be responsible for it'; quoting as a precedent the instance of McKave, who murdered a Commissioner in Lunacy about two years previously. I may mention that McKave's trial was stopped by the judge on the ground of the prisoner's insanity. This homicidal propensity has existed ever since, and still continues, and I may add that in my opinion the patient is quite as dangerous to others as to myself. To prevent his making such another attempt, his arms are confined to his sides by a waist-belt and armlets, so that his arms cannot be raised above his head to strike a heavy blow. Some persons would call this man's conduct 'uncontrollable'; I call it 'uncontrolled.' But, at all events, whilst he is so dangerous I see no good reason why the lives of those about him should be risked from a sentimental objection to the use of restraint, and, until I see very good reason to the contrary, I shall continue to prefer the safety of others to the freedom of limb of a would-be assassin."

We are indebted to Dr. Manley for the above description contained in the Hampshire County Asylum Report. He deserves great praise for the management of the case. Restraint should be used in all similar cases where *any* homicidal tendencies exist; and we hope the publication of the above particulars will draw the attention of superintendents of asylums to similar cases. We have not only to protect the lunatic himself from harm, but those with whom he must come in contact.

CASE OF TIERNEY.

Tierney, who was sentenced to death, but who was afterwards reprieved on the plea of insanity, and whose case caused considerable discussion some short time ago, is still an inmate of an asylum, thus confirming the opinion expressed by Dr. Winslow at the time of the trial as to his mental state.

APPOINTMENTS.

- Bond, J., L.R.C.P. Edin., L.M., L.R.C.S.I., Assistant Medical Officer to the Haydock Lodge Lunatic Asylum, Newton-le-Willows, *vice* Johnstone, resigned.
- Bower, David, L.F.P. and S. Glas., Resident Medical Superintendent of Saughtonhall Asylum, near Edinburgh.
- Clay, R. H., M.D. Edin., Medical Visitor of Plympton House Lunatic Asylum, Plympton, Devon.
- Cremonini, John, M.R.C.S.E., L.S.A. Lond., Resident Medical Superintendent of the Hoxton House Lunatic Asylum, *vice* Hunt, deceased.
- Crowdace, J. H., L.S.A., Assistant Medical Officer to the East Riding of Yorkshire Lunatic Asylum, Beverley.
- Davies, F. P., M.B., M.R.C.S.E., Medical Superintendent to the Kent County Asylum, Barming Heath, near Maidstone, *vice* W. P. Kullham, M.D., resigned.
- De Denne, T. V., L.R.C.P. Edin., M.R.C.S.E., Assistant Medical Superintendent, Bristol Lunatic Asylum, Stapleton, *vice* Dickson, resigned.
- Durrant, C. M., M.D., F.R.C.P.L., Visiting Physician to Lunatic Asylums in the Borough of Ipswich.
- Hartnoll, H. T., M.R.C.S.E., L.S.A. Lond., Medical Visitor of Court Hall Lunatic Asylum, Kenton, Devon.
- Harvey, C. W., M.B., L.R.C.P.L., M.R.C.S.E., Assistant Medical Officer to the Berks County Lunatic Asylum, Moulsoford, *vice* Urquhart, resigned.
- Kebbell, W., M.R.C.S.E., L.R.C.P.L., Junior Assistant Medical Officer, Three Counties Asylum, Beds.
- Major, H. C., M.D. Edin., Medical Superintendent, West Riding Asylum, Wakefield, *vice* Dr. Crichton Browne, appointed a Chancery Visitor of Lunatics.
- M'Kechnie, A., M.B., C.M., L.R.C.S. Edin., Assistant Medical Officer to the Inverness District Lunatic Asylum, *vice* Weir.
- Miles, G. E., M.R.C.S.E., Assistant Medical Officer, North Wales Counties Lunatic Asylum, Denbigh.
- Millson, G., L.R.C.P. Lond., Medical Superintendent, Northamptonshire New Lunatic Asylum.
- Packer, W. H., L.A.C., Junior Assistant Medical Officer to the Gloucestershire Lunatic Asylum, near Gloucester, *vice* Cassin.

- Powell, E., M.R.C.S., L.S.A., First Assistant Medical Officer to the Kent County Lunatic Asylum, Barming Heath, *vice* Davies, appointed Superintendent.
- Phillips, J. D., L.F.P. & S. Glas., L.M., Second Assistant Medical Officer to the Fisherton House Lunatic Asylum, Salisbury, *vice* Andrews, resigned.
- Rogers, E. C., M.R.C.S.E., Senior Assistant Medical Officer to the Three Counties Asylum, Beds, *vice* Dr. Rees-Philipps, resigned.
- Seed, W. H., M.B., C.M., Second Assistant Medical Officer to the Warwick County Lunatic Asylum, Hatton, *vice* Peacock, resigned.
- Squire, W., M.R.C.S.E., Assistant Medical Officer to the Fisherton House Lunatic Asylum, Salisbury.
- Sympson, T., F.R.C.S., Honorary Surgeon to the Lincoln Lunatic Hospital, *vice* Snow, deceased.
- Taylor, E., L.K.Q.C.P.I., L.M., L.R.C.S.I., Assistant to the Resident Physician and Governor, State Criminal Asylum, Dundrum, Co. Dublin.
- Thomson, A., F.R.C.S.I., L.M.K.Q.C.P.I., Assistant Medical Officer to the Barnwood House Hospital for the Insane, Gloucester, *vice* Pilcher.
- Thomson, W. A., F.R.C.S.I., L.K.Q.C.P.I., Second Assistant Medical Officer to the Surrey Lunatic Asylum, Brookwood.
- Wade, A. L., M.D., L.R.C.S.I., Assistant Medical Officer to the Warwick County Lunatic Asylum, Hatton. *vice* Woods, appointed Medical Superintendent of the Kerry Lunatic Asylum, Killarney.
- Wells, E., M.D., F.R.C.P.L., Visitor of Houses Licensed for the Reception of Lunatics in the County of Berks.
- Wood, T. O., M.R.C.P. Edin., M.R.C.S.E., Resident Medical Superintendent, Isle of Man Lunatic Asylum, Douglas, *vice* Harrison, deceased.
- Young, A., B.A., L.S.A.L., Second Assistant Medical Officer to the Kent County Lunatic Asylum, Barming Heath, *vice* Wood, appointed Medical Superintendent of the Isle of Man Lunatic Asylum, Douglas.

AMERICAN CENTENNIAL CELEBBATION.

INTERNATIONAL MEDICAL CONGRESS.

THE medical societies of Philadelphia, animated by a just spirit of patriotism, and an earnest desire to unite with their fellow-citizens in celebrating the Centennial Birthday of American Independence, have taken the initiatory steps for the formation of an International Medical Congress, by the appointment of delegates from their respective bodies, who were empowered to organise and perfect a scheme for the above purpose. In accordance with the authority thus given, the delegation has organised the Centennial Medical Commission, with the following officers: *President*, Samuel D. Gross, M.D., LL.D., D.C.L. Oxon.; *Vice Presidents*, W. S. W. Ruschenberger, M.D., U.S.N., Alfred Stillé, M.D.; *Recording Secretary*, William B. Atkinson, M.D.; *American Corresponding Secretaries*, Daniel G. Brinton, M.D., William Goodell, M.D.; *Foreign Corresponding Secretaries*, Richard J. Dunglison, M.D., R. M. Bertolet, M.D.; *Treasurer*, Caspar Wister, M.D.

Arrangements have been made for the holding of the Congress in the city of Philadelphia, to begin on the 4th and to terminate on the 9th of September 1876. The Commission propose the following general plan for the organisation and business of the Congress:—

I. The Congress shall consist of delegates, American and foreign, the former representing the American Medical Association and the State and Territorial Medical Societies of the Union; the latter the principal medical societies of other countries.

II. The officers shall consist of a President, ten Vice-Presidents, four Secretaries, a Treasurer, and a Committee of Publication, to be elected by the Congress at its first session, on the report of a Committee of Nomination.

III. The morning sessions of the Congress shall be devoted to general business and the reading of discourses; the afternoons to the meetings of the Sections, of which there shall be nine, viz:—

1. Medicine, including Pathology, Pathological Anatomy, and Therapeutics.
2. Biology, including Anatomy, Histology, Physiology, and Microscopy.
3. Surgery.
4. Dermatology and Syphilology.
5. Obstetrics and Diseases of Women and Children.
6. Chemistry, Toxicology and Medical Jurisprudence.
7. Sanitary Science, including Hygiene and Medical Statistics.
8. Ophthalmology and Otology.
9. Mental Diseases.

IV. The language of the Congress shall be the English, but not to the exclusion of any other language in which members may be able to express themselves more fluently.

Gentlemen intending to make communications upon scientific subjects will please notify the Commission at the earliest practicable date, in order that places may be assigned them on the programme.

In order to impart to the Congress a thoroughly international character, invitations to send delegates will be extended to all the prominent medical societies in Europe, Mexico, the British Dominions, Central and South America, the Sandwich Islands, the East and West Indies, Australia, China, and Japan. Invitations will also be tendered to medical gentlemen of high scientific position, and distinguished visitors may be admitted to membership by a vote of the Congress.

Among the advantages arising from such a convocation as this, not the

least important will be the opportunity afforded its members for the interchange of friendly greetings, the formation of new acquaintances, and the renewal and cementing of old friendships.

The Centennial Medical Commission tender in advance to their brethren in all parts of the world a cordial welcome, and a generous hospitality during their sojourn in the 'Centennial City.'

The Congress will be formally opened at noon, on Monday, the fourth day of September, 1876.

The registration book will be open daily from Thursday, August 31, from 12 to 3 P.M., in the Hall of the College of Physicians, N.E. corner 13th and Locust Streets. Credentials must in every case be presented.

Gentlemen attending the Congress can have their correspondence directed to the care of the College of Physicians of Philadelphia, N.E. corner Locust and 13th Streets, Philadelphia, Pennsylvania.

There is every reason to believe that there will be ample hotel accommodation for all strangers visiting Philadelphia in 1876. Further information may be obtained by addressing the Corresponding Secretaries.

All communications must be addressed to the appropriate Secretaries.

William B. Atkinson, 1400 Pine St., Philadelphia, *Recording Secretary.*

Daniel G. Brinton, 2027 Arch Street, } *American Corresponding*

William Goodell, 20th and Hamilton Sts. } *Secretaries.*

Richard J. Dunglison, 814 N. 16th Street, } *Foreign Corresponding*

R. M. Bertolet, 113 S. Broad Street, } *Secretaries.*

Philadelphia, October, 1875.

THE JOURNAL

OF

PSYCHOLOGICAL MEDICINE

AND

MENTAL PATHOLOGY.

PART 2. VOL. II.

NEW SERIES.

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THE JOURNAL OF PSYCHOLOGICAL MEDICINE.

NOTICES.

Original Communications and Books for Review should be sent to the EDITOR, 23 Cavendish Square, or to the Publishers.

Authors of Original Papers will receive Five Copies of the Journal, and are entitled, should they wish it, to One Hundred Reprints.

The Editor does not hold himself responsible for the views of his Contributors, whose names are affixed.

Part 1, Vol. III., of the New Series will be published in April 1877. All Communications must be sent before the end of January.

Gentlemen desirous of receiving the past or future numbers of the Journal will oblige by sending their names and addresses to the Publishers.

The price for each half-yearly number is 3s. 6d. Annual subscription, payable in advance, 7s. post free.

All Communications respecting Subscriptions, Advertisements, and other business matters connected with the Journal to be made to the Publishers, BAILLIÈRE, TINDALL, & COX, 20 King William Street, Strand (INSTEAD OF to Messrs. Smith, Elder, & Co., as heretofore), to whom also Cheques and Post Office Orders should be made payable.

We regret that, owing to want of space, we are obliged to defer the publication of several valuable papers already in type until our next number.

We have to acknowledge the receipt of the American Journal of Insanity; the Chicago Journal of Nervous and Mental Disease; New York Medical Record; Le Progrès Médical; On Uncontrollable Impulse, by Dr. Claye Shaw; On the Education and Training of the Feeble in Mind, by Dr. Langdon Down; Epilepsy: its Medical and Moral Treatment, and Cure, by Dr. F. Goodechild; Considerations on the Cures in Insanity, by Dr. Savage; Commissioners' Report for Scotland and Ireland, &c., &c.

THE JOURNAL
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MENTAL PATHOLOGY.

ART. I.—NIGHTMARE AND DREAMING.

BY J. M. WINN, M.D., M.R.C.P., &c.

NIGHTMARE and dreaming are so closely entangled, that it is impossible to study their phenomena apart. It is the subject of nightmare to which I would especially direct attention. Having been myself a martyr to this distressing complaint, I have been in the habit, during a period of twelve years, of making notes of my mental state and physical condition before and during the attacks, in the hope of throwing some light on its origin, and thereby leading to the discovery of some means for preventing or mitigating the horrors of an affection to which we are all more or less liable. I have also preserved some memoranda relative to dreams unattended with nightmare, thinking they might perhaps afford some slight clue towards the solution of some of the most difficult questions in psychology and physiology.

Recent writers on the practice of physic, in this country, have all but tabooed the subject of nightmare—on which the old authors were so fond of expatiating—as if prompted by the desire to consign a matter so obscure to the limbo of the incomprehensible, the inexplicable, and the irremediable. I find no mention of it in the works on medicine by Sir Thomas Watson, or Drs. Reynolds, Aitken, and F. Roberts; and the late Sir Henry Holland, in his eloquent article on “Sleep and Dreams,” which originally appeared in the *Edinburgh Review*, in 1873, and was subsequently published by his son, among Sir Henry’s fragmentary papers, dismisses the subject of nightmare with a very few words. He merely observes that nightmare is a familiar example of the troublous sensations, and troubled dreams which

are so often the effect of the undigested dinner of the preceding day.

But the obscurity of any matter is no excuse for ignoring it; if it were, some of the most interesting problems in physiology and pathology might at once be abandoned. For example, how little is known of the nature of epilepsy! and yet there is no disease that at the present time is receiving more scientific attention.

Dr. John Bond, who published an essay on "Incubus, or Nightmare," in 1753, and who appears, like myself, to have had his attention drawn to it by his own sufferings, makes the following remark: "Being much afflicted with nightmare, self-preservation made me particularly inquisitive about it. In consulting ancient physicians I found little information except dreadful prognostics." McNish, in his interesting work on the "Philosophy of Sleep," published in 1830, gives a graphic description of the horrors of nightmare as experienced by himself: "Imagination cannot conceive the horrors it gives rise to, nor language describe them in adequate terms. . . . They are a hundred times more frightful than the visions conjured up by necromancy or *diablerie*. . . . The whole mind during the paroxysm is worked up to a pitch of unutterable despair." Shakspeare, in "Richard III.," describes troubled dreams in language which is equally applicable to nightmare:

O, I have pass'd a miserable night,
So full of fearful dreams, of ugly sights,
That, as I am a Christian faithful man,
I would not spend another such a night,
Though 't were to buy a world of happy days:
So full of dismal terror was the time.

The Greek writers are among the earliest who have left us any account of nightmare. They termed it *Ephialtes* (from ἐφ' ἅλλομαι, to leap upon). The Romans gave it the name of Incubus, from the notion that it was accompanied by a sensation of external pressure. According to Bosworth, *mare* is an old Saxon word, signifying nightmare; and Shakspeare, in "Henry IV.," makes Dame Quickly say, "I'll ride you like the mare."

In this country it was formerly called by the peasantry witch-riding, and in France it was termed *coque-mare*. Many of the old writers believed it to be a fairy.

Incubus (from *incubo*, I sit upon) appears to me to be a misnomer. Nightmare is a nervous disease, *sui generis*, and in the worst attacks that I have myself had there was no sense

of that weight on the chest so generally complained of: it was chiefly a vague, supernatural horror and dread. Until more is known of its pathology, perhaps night-terror would be a more appropriate term. Real nightmare must not be confounded with the troubled dreams which are caused by the stomach being oppressed by undigested food.

The symptoms of nightmare are variously described by different writers. McNish considers the essential features of it to be an active state of the memory and imagination, an impaired condition of the respiratory functions, and a torpor of the power of volition. Many writers refer it to some disorder of the organs of respiration. The late Dr. Hodgkin, who suffered acutely from it, published in the *British Medical Journal*, for May 16, 1863, an account of his own experience, and gave a description of his feelings. It appeared to him that the voluntary movements of respiration were suspended, whilst at the same time the chest seemed passively to collapse. On making a strong effort to breathe at the moment of waking, he found that the diaphragm would not descend. He also observed, as I have myself done, what is in opposition to the commonly received opinion, that there was no material derangement of the heart or circulation. The only other symptom he records is, occasionally a sensation of pricking, as from pins and needles, in the lower extremities. He gives no analysis of his mental state during the attacks.

I will now select from my memoranda of 112 attacks some of the most noteworthy instances of nightmare in my own individual experience. My attacks have been of various degrees of intensity and duration—some slight and transient, others protracted and agonising. On two occasions they were accompanied by an intolerable feeling, which I can only describe as that of dying, and I felt that if no one came to rouse me I must inevitably expire.

1. This is the first attack I have recorded, and was one of the two aggravated instances to which I have alluded. It was marked by an inexpressible sensation of dying. No physical cause could be assigned for the attack, but at that time I had great mental anxiety.

2. This attack was preceded by some palpitation of the heart and *tinnitus aurium*.

3. The accompanying dream was singular; I was conscious of being in my bedroom, and saw everything in it as if I had been awake.

4. A severe attack; no palpitation of the heart.

5. This attack occurred after severe bodily fatigue, in ascending a mountain in Switzerland.

6. Knew in my sleep that it was nightmare from which I was suffering, and longed for some one to rouse me.

7. Again I was conscious of being under the influence of nightmare, and I experienced dread without cause.

8. Marked by inability to expand the lungs.

9. Very bad attack. I had gone to bed in good bodily health. The chief feature of the dream was a fear lest I should not be roused out of my sleep, as I was accustomed to be.

10. Preceded by neuralgic pains, probably of gouty origin.

11. Occurred about 1 a.m., at a time when I was in anxious attendance on a friend who was dangerously ill. I screamed so loudly during the paroxysm that the person in the house came to my bedroom to enquire after me. In the morning I had no recollection of screaming, or of having had a nightmare.

12. Went to bed in apparently good health. Lying on my back when the attack came on. Sensation, simply the consciousness of being in a nightmare. It was protracted from there being no one at hand to rouse me.

13. Twice in one night, after slight stomach derangement.

14. Very bad—after anxiety; followed by palpitation of the heart.

15. Marked by feelings of great exhaustion and inability to articulate. A thunderstorm occurred the same night.

16. Felt as if I should never pull through. After great anxiety.

17. Twice in one night. After neuralgic pain of leg.

18. Three times in one night.

19. Knew in my sleep that I was labouring under a nightmare, and that I should be able to get rid of it if I could draw a deep inspiration.

20. A sharp attack whilst sleeping in a cramped position in an armchair.

21. I overcame an incipient nightmare by force of will, being conscious that a paroxysm was coming on. I was aware in my sleep that I was dreaming.

22. This was one of the two terrible attacks to which I have referred, and was similar to the first on my list. It came on, after a comparatively long interval of freedom from any acute attack. I was lying on my right side, and I thought I should never recover the power of volition, and that if relief did not come I should not live another second. After waking I turned on my back and had scarcely fallen asleep when I had another short, sharp attack, and screamed so loudly that I heard my own screams. I had gone to bed in good health, though

I had previously had some anxiety and slight dyspeptic symptoms.

In these brief sketches I have not thought it necessary to give the details of the dreams which have generally accompanied my attacks of nightmare. They mostly had reference to some unseen agent on the point of attacking me, whom I was powerless to resist, and of late years have been mostly limited to a consciousness that I was suffering from nightmare, and are remarkable because they have been free from frightful spectra, though sometimes associated with a vague dread of something supernatural. Is it possible that as we get older the imagination becomes less vivid, so that even our dreams are more realistic? If this be so, it must be inferred that early life is not the most favourable period for studying the intricate phenomena of nightmare. In endeavouring to analyse them, I shall be guided chiefly by my own experience; for nightmare and dreams are both so entirely subjective that it is only through the individual consciousness that we can become cognisant of them. Moreover, it is to the members of the medical profession, who, like myself, are victims to nightmare, that we must look for reliable accounts of the malady, for we cannot expect that the vague reports of those who are unaccustomed to physiological and psychological observations will help to solve an obscure and difficult problem.

In investigating a subject so overrun with error and superstition as that of nightmare, the first step is to endeavour to separate the true from the false, so as to circumscribe the field of enquiry. If we can ascertain what it is not, it may help us to the knowledge of what it is; and if my remarks do no more than this, my labours may not be wholly in vain.

The generally received opinion that nightmare is simply a sensation of weight on the chest, and that it consists essentially in an arrest of respiration, is, as far as my experience extends, erroneous. That the voluntary power over the respiratory muscles is often momentarily suspended is no doubt correct; but it is not only the power over these muscles that is affected, but also that which extends over all the voluntary muscles. In only two instances of my attacks, as I have before stated, were the respiratory symptoms so prominent as to induce me to make note of them. In one it did appear to me that if I could only respire I should recover; in the other, I felt that incapacity to inflate the lungs to which Dr. Hodgkin has referred.

It is a common mistake to suppose that lying on the back is a fertile source of nightmare. From repeated observations I feel quite convinced that the posture of the body has little to do with it. I have had attacks whilst lying on either side,

and on one occasion, as I have noted, I had a paroxysm whilst sleeping in a chair.

Some writers allude to its being accompanied by disorder of the circulation, marked by great palpitation of the heart. On carefully examining the state of my pulse immediately after attacks I have as a rule found it very little affected, although I have in a few instances experienced a slight palpitation.

With regard to the influence of an overloaded stomach in producing nightmare, whilst admitting that it may be an exciting cause in some persons, I cannot recall in my own experience a single instance in which I could attribute it to any irregularity as to diet; quite the reverse. I can recollect attacks coming on at times when I have eaten very slight meals, and consequently was, perhaps, in want of food.

Spasm of the diaphragm has been supposed to be the exciting cause of the symptoms of nightmare; but no sufficient reason has been assigned for this notion, and I never suspected it in my own case.

Some writers have surmised that angina pectoris, asthma, and hydrothorax produced nightmare. It is well known that these affections give rise to horrible dreams, such as falling off precipices, etc., but these must not be confounded with the peculiar nervous disease under consideration.

Boerhaave thought that nightmare was a precursor of apoplexy; if it were so, apoplexy would be far more frequent than we find it to be.

Formerly, during the years when my sufferings were the most severe, it seemed to me that the attacks had somewhat of a periodical character, occurring on an average once or twice a month; longer observation, however, convinced me that it was not so, although they showed some approximation to regularity. Dr. Hammond mentions a remittent case which was benefited by quinine.

At one time it occurred to me that a predisposition to gout might in my own case have some relation to nightmare, as I have frequently experienced neuralgic pains which I have suspected to have a gouty origin; but, on the other hand, I have never had a fit of gout, and my health has been exceptionally good, having never been confined to bed by illness for a single day since I was a child.

If, then, nightmare cannot be traced to any of these causes, what are the chief agents concerned in producing it? I am induced to think, from my individual experience, that the causes are mainly of a psychological character. In so many instances have I suffered from nightmare when under great mental anxiety, that I am drawn to the conclusion that that state of mind is

more likely to be a predisposing cause than any of those that have been enumerated. The late Dr. Elliotson suggested that the seat of nightmare was in the brain. The fact that literary men, those of a nervous temperament, and those undergoing mental strain, are prone to it, favours this opinion.

And now comes the vexed question,—What is the nature of this mysterious and fearful disease, which often attacks people apparently in good health suddenly, and, like a thief, in the dead of night? What are the mental and physical conditions on which depends a disease so terrible as to be, as Dr. Bond describes it, “such a source of misery” that sleep, instead of a boon, “is a source of inexpressible dread and suffering”? This question is more easily asked than answered; nevertheless, a careful analysis of the symptoms during a paroxysm may help in some degree towards its solution.

The symptoms generally complained of and described by those who have been the victims of nightmare are inability to move, articulate, or respire, accompanied by a sensation of weight on the chest, by screams, or indistinct sounds; some also have a feeling of numbness; and, in my own case, twitching of the muscles of the lower limbs (of which I was unconscious) and faint moanings have been observed for two or three minutes by a watchful friend, before the misery has come to an agonising crisis. The mental symptoms detailed by authors are as varied as the dreams which accompany the malady, and often refer to some horrible monster sitting on the chest, visions of robbers or assassins, etc., etc. As regards myself, of late years, as I have already stated, the horrible dread has been unattended by spectra, but associated with a vague fear of something supernatural. Sometimes I have simply had a distressing feeling of being in a nightmare, as if, after a countless number of attacks, my mind had become so familiar with its phenomena that my consciousness recognised them as being the symptoms of a coming attack as readily as if I had been awake, and accepted them as such.

The most intolerable of all the symptoms that I have experienced is that which I have mentioned as a horrible feeling of dying, in conjunction with the sense of utter helplessness. There is no physical pain, but a conviction that if not speedily roused I must expire.

The only explanation of the phenomena of nightmare that I can venture to offer is, of course, entirely hypothetical. Is it possible that from some abnormal condition during sleep the motor ganglia have temporarily ceased to supply the nerve force necessary for the due performance of the voluntary movements? Is not this notion more conceivable than the generally

received opinion that the will* is in abeyance, and entirely separated from those voluntary muscles which are ordinarily under its control. I have felt, during these attacks, that I had the will, but not the power to shake off the death-like torpor. The fact, also, that I distinctly recollect having, on one occasion, overcome a nightmare in my sleep by sheer force of will, supports the theory.

If sleep be, as is commonly supposed, a state of inaction, or rest of the organs of sense and motion, either partial (as in somnambulism) or entire (as in deep sleep), it is reasonable to infer that, in nightmare, the sleep of those organs actively engaged in communicating nerve force to the voluntary muscles has become so profound that they do not respond to the prompting of the will. As soon, however, as the motor ganglia become aroused by the waking state, the nerve force is sent along the motor tracts, and the nightmare spell is broken. May not the nightmare agony be a provision of nature to awaken the sleeper, and thus provide for the due performance of the muscular movements, both voluntary and involuntary, which, if not restored, would cause death by apnœa. Dr. Hodgkin thought that, in his own case, the paroxysm of nightmare sometimes continued after he was awake. In this I think he may have been mistaken: perhaps he had a dream so vivid as to lead him to imagine himself awake; for I have myself frequently noticed that my nightmare dreams have had an extraordinary appearance of reality. I have dreamt that I was lying in the very bed in which I was really sleeping, and that I saw everything in my bedroom exactly as if I had been awake.

It is much to be desired that some medical man should have the opportunity of watching some one under the influence of nightmare, in order to ascertain whether the circulation and respiration are materially affected or not; such observation would greatly assist the enquiry into the nature and cause of the disease.

Dr. Hodgkin felt so convinced of the gravity of the symptoms of nightmare, from his own experience, that he thought it probable that many persons died during the paroxysm. I think differently, for, as I remarked before, I look upon it rather as an effort of nature to restore the equilibrium of the nerve force.

I have little to offer in the way of treatment; all remedies hitherto suggested have been found of little avail. The main object is to cut short the paroxysm, and this may be done by a

* Some of the materialistic physiologists who confound mind and brain, and who, with all their contempt for metaphysics, make use of metaphysical terms in an unphilosophical manner, attempt to reason away the idea of a Will; but while consciousness lasts, it is impossible to divest ourselves of the conviction that we have a Will, call it by what name we may.

watchful companion who is a light sleeper, quick to detect the approach of an attack, and prompt to rouse the sleeper by shaking him. I am convinced that by this means I have been saved protracted misery.

The subject of dreaming is so closely blended with that of nightmare that a few remarks on the former may not be out of place.

Recent writers on dreaming—I refer to the modern materialistic school—have fallen into the error of losing sight of its psychical aspect. They confound mind and brain, and imagine that all the phenomena of dreaming are the result of physical changes in the nervous system.

In dreaming, consciousness and memory are not lost; the emotions and imagination are in full force; whilst judgment and comparison are in abeyance. It is, I think, a mistake, as I have previously observed, to suppose that the will is absent during sleep. Dr. Hammond says that volition or will is entirely suspended during sleep. Dugald Stewart, on the other side, states it as his opinion that the efforts we are conscious of making in our sleep, proves the contrary. The chief feature of dreaming, as in incoherent insanity, is a want of controlling power over the thoughts, and an inability to perceive the incongruity of the hallucinations conjured up by the imagination.

The most incongruous dream I ever had, was that I was Charles I. on the way to execution; but the strangest of all dreams is that of McNish, who dreamt that he was riding on his own back.

It has been noticed that we are not startled in our dreams at seeing the friends who have been long dead still alive; but there is a still more extraordinary psychological fact of my own experience, that I never by any chance dream of departed friends as dead, the circumstance of their decease being utterly obliterated from my memory.

The most obscure problem connected with sleep and dreaming, and the one respecting which there are such conflicting opinions, is that which relates to the state of the mind in what is called dreamless sleep. Some assert that at such times the mind is a perfect blank; others, as it appears to me, with more probability, that the profoundest sleep is not unattended with dreams, though sometimes they are as utterly forgotten as if they had never occurred. Sir William Hamilton entertained the latter opinion. Sir Henry Holland, whose elaborate and brilliant paper on "Sleep and Dreams" has been already referred to, leans to the former and materialistic view of this question. He observes that there

may be times in which there is a "complete absence of images and trains of thought;" in other words, dreamless sleep. This is unexpected and contradictory, as the general tone of his writings would lead us to infer that he recognises an immaterial principle; and he says in the same article, referring to dreams, that "no less a problem than the intimate nature of the human *soul* is concerned in the phenomena." It would almost seem as if Sir Henry, in spite of his characteristic caution, had allowed himself to be somewhat influenced by the scientific materialism of the present day. For a long period I have been in the habit of observing that if I am suddenly roused up just as I am falling off to sleep, I never can recover the train of thought which occupied my mind in the transition state. I have often tried in vain. If, then, it is so difficult to recall the ideas of the semi-waking state, is it not probable, *à fortiori*, that we should utterly forget the images and trains of thought carried on in deep sleep?

In attempting to unravel the mysteries of dreaming, we find ourselves face to face with some of the most difficult and profound problems of mental philosophy, and as yet we have discovered little more than the fact that while the bodily organs are in a state of repose, the mind, as in a reverie, is left to wander, fancy free, amongst the images and memories of the past.

ART. II.—SKAE'S CLASSIFICATION OF MENTAL DISEASES.*

THE provincial editor of the *Journal of Mental Science* is in high dudgeon because his teachings have been called in question, or rather, to speak more correctly, even if more metaphorically, because some of the flimsy theories of his estimable master, the late Dr. Skae, which it was his object diligently to inflate, have been touched and have exploded. Skae's classification of mental diseases has been gently pressed and has collapsed, and Dr. Clouston, who has been long advertising it as a solid and substantial article, instead of being pensive and contrite, is indignant and aggressive. Dr. Crichton Browne has given expression to various objections to that system that have long floated in the minds of all unbiassed students of insanity, and Dr. Clouston has replied to his philippic in a paper that is "sicklied o'er with the pale cast"—not of thought, but of apparent enmity, literary enmity of the most unmistakable description. The simple truth is, that Skae's curious construction, which he called a classification and which has been long bolstered up by a band of devoted pupils, has received a rude shock, and has suddenly toppled over and crumbled into dust. That dust, however, is now stirred by a tumult of frantic fidelity, and is raised into a cloud that obscures the vision of on-lookers and conceals for a time the extent of the destructive disintegration. It shall be ours by a whiff of criticism to blow aside that cloud, and to show that there is nothing at its core but Dr. Clouston, in a very perturbed state. It shall be ours also to contend with Dr. Clouston, to convince him that Skae's system is no more, and to employ such moral force as may be necessary to appease him.

It is not an agreeable task that we have undertaken, to apply the bellows to a dialectic dust-cloud, and to grapple with an incensed adversary; but it is a needful one in the interests of that medico-psychological science which we in some degree represent. And as it is not an agreeable task, so neither is it an easy one, as there are special difficulties that attend it. It is, for instance, no easy task to grapple with Dr. Clouston, not

* Skae's *Classification of Mental Diseases*. A Critique. By J. Crichton Browne, M.D., F.R.S.E. *Journal of Mental Science*, October 1875.

Skae's *Classification of Mental Diseases*. By T. S. Clouston, M.D., F.R.S.E., F.R.C.P.E., *Journal of Mental Science*, January 1876.

because of the strength and firmness of his intellectual grip, but because of its very weakness, together with the individual peculiarities of his mode of warfare, of which we have learnt something from watching him whilst engaged in combat. Whenever he seems to have got a hold, he instantly lets go again. Whenever he has taken up a position, he changes it. The agility with which he avoids an argument, the confused manner with which he makes an onslaught, and the shouts of victory which he emits when hopelessly worsted, are all very perplexing to his opponent. It is apparent that Dr. Clouston, though endowed with much mental adroitness, does not possess those habits of perspicuous thought for which his countrymen are so often distinguished. Perhaps his philosophical has not kept pace with his medical training. At any rate he is slow to comprehend general principles, and quick to slip, whenever opportunity offers, out of the abstract into the concrete. His reasoning is often faulty, and his opinions are indistinctly set forth. Add to this that his style is at once involved and slipshod, and it will be understood why it is somewhat difficult to maintain a discussion with him.

But beyond the difficulties enumerated as complicating any discussion with Dr. Clouston, there are others that are special to that discussion that we have undertaken. In the defence of Skae's classification, his feelings are warmly enlisted, and it is in the nature of all excited feelings to interfere with the equilibrium of intellect. Thus it is, doubtless, that he has repeatedly misunderstood the arguments to which he has volunteered to reply, and has misrepresented (unwittingly, we quite believe) the statements of his antagonist. His essay bears the traces of hot haste. Its pages have been written at a time when he had not at his very finger tip the paper which he was engaged in refuting. Thus have misreadings and misinterpretations occurred, and thus have fresh obstacles been put in the way of those who have to be critics three times removed. We shall do our best, however, under trying circumstances, to meet Dr. Clouston along his whole line, and we can only assure him, that should we omit to notice any salient point or masked battery, he has but to call our attention to the oversight, and we shall do our best to remedy it. We have to beg him to bear in mind that we are not making an original attack upon Skae's classification (for were we doing so we should approach it from an aspect different to that which Dr. Crichton Browne has chosen for his assault upon it), and are not defending any classification of mental diseases, but that we are reviewing his defence of Skae's classification, and contrasting his essay on the subject with that of Dr. Crichton Browne, with which it is in direct issue. Such a review and contrast would be

unnecessary, could we feel sure that the two essays were read together; for then there could be no hesitation in deciding to which side victory inclined. But they are separated by an interval of time, and Dr. Clouston's has come last, and in these busy days folks are not prone to reperuse old magazines, so we think it desirable to bring the essays together to examine them side by side, and to give prominence to the triumph of the one and the defeat of the other.

At the very outset of Dr. Clouston's paper we come upon an obvious mistake, which must be corrected, as it is calculated to produce unfair impressions. "Dr. Browne," he says on the second page of his lucubration, "begins by a defence of Esquirol's system," which on referring to Dr. Crichton Browne's paper is, we discover, just what he does not do. His words are that he has "abstained from entering upon any elaborate defence of that system," as his purpose was not to vindicate it but to display the incompetency of its rival. He has indeed confined himself to answering four objections to it advanced by Skae, and has not travelled beyond these to express any approval of it, or to repel objections from other quarters. Dr. Clouston proceeds upon the assumption that Dr. Crichton Browne has put forth his whole strength in support of Esquirol's classification—which is not really Esquirol's after all,—and that he has given in his unqualified adherence to it; whereas it is obvious enough that he does not accept that classification, although he prefers it to Skae's, and maintains that his objections to it have no validity. The one characteristic in Esquirol's classification which Dr. Crichton Browne homologates is its adoption of the mental symptoms of insanity as the primary basis of division, but he goes with it no further than this, and indeed affords an inkling that he does not consider the partition as carried out by Esquirol satisfactory, and that having effected a primary division by mental symptoms, he would for his own part connect these with bodily symptoms and so arrive at specific differences. To his pupils it is well known that neither in his clinical work nor as a lecturer has he identified himself with the details of Esquirol's system.

It is on the point in which Dr. Crichton Browne does agree with Esquirol, the adoption of the mental symptoms in insanity as the basis of primary division, that he and Dr. Clouston first come into collision, and a very fundamental point it is. Skae had objected to Esquirol for adopting that basis, Dr. Crichton Browne had replied to Skae, and now Dr. Clouston makes an effort to reply to Dr. Crichton Browne. His creed is that symptoms ought not to form a basis of classification, but he is not very fluent of reasons for the faith that is in him, and never states in exact language what basis he would substitute

for that which he desires to abolish. He seems to have some puerile anticipation that we shall yet arrive at actual pathological entities; for after repeating the rather trite observation of his opponent that we are "still as far as ever from mounting a delusion in Canada balsam or from detecting despondency in a test tube," he ruefully exclaims, "The dream of so many patient workers in clinical and pathological fields is a mere chimera." Dreams often are chimerical, but we were not aware, until we read the above, that our pathologists and clinical observers were haunted by such monstrous visions of the night. It is almost a pity to disturb such touching faith in dreams as that which Dr. Clouston evinces, and which must cheer and sustain him vastly in his investigations into the morbid anatomy of the brain, but we are bound to tell him that he might just as well start on one of Cook's Excursions in quest of El Dorado, or boil down vegetables in a search after the *elixir vitæ*, as strain his eyes in hunting for delusion cells. He is himself the victim of a delusion in entertaining the possibility of such a discovery, and we should give much to ascertain out of what kind of notion of a psychical process such a delusion can have arisen. Why with reference to the crudest of delusions, hallucinations of the senses, Wundt, the great exponent of physiological psychology, asserts that their basis is a more energetic central impulse than that of normal fancy and of memory, which impulse reaches the peripheral regions of the senses, and so approximates to the nervous process of perception. A hallucination is therefore a nerve cell and fibre change, involving centre, trunk, and periphery, and travelling at the rate of one hundred and ten feet a second, and this the sanguine Superintendent of Morningside hopes to catch on the wing. His next step will probably be to make a section of a telegraph wire with the expectation of reading off in his microscope a message in the act of transmission.

We have no wish to attach any stigma to Dr. Clouston when we say that the doctrine to which he gives countenance in encouraging such dreams is the rankest materialism, and reduces everything vital and mental to conditions from which the extraorganic is excluded. It attempts to explain phenomena of a higher in the terms of a lower order, to explain mind by chemistry and physics; it makes brain solid, mind and thought the property of nerve cells. This utterly illusory conception is indeed more than encouraged by Dr. Clouston; it is adopted by him, for he looks forward to the time when "we shall know precisely the state of the brain cells which causes a woman to be restless, violent, and sleepless, to mistake identities, and to forget her sucking child." Well may the most thought-

ful of physiologists declare, in view of extravagances like this, that great nonsense is uttered about the modern central nerve cells! Well may he designate a misleading artifice the selection by Courbe of phosphorus as the "*principe excitant du cerveau*, without which the brain of man is brutalised, with an excess of which it is goaded into madness, and from a just proportion of which the sublimest ideas and the most admirable harmony proceed." This theory of Courbe, which chemistry has dissipated and which the biologist turns from with contempt, referring its votaries to the bones, where they will find much more of their beloved phosphorus than in the brain, is not a whit more preposterous than Dr. Clouston's prediction that we shall before long read off the written troubles of the brain, and actually perceive a mental process. That pigs see the wind is currently believed, but that men may see mind has not hitherto been suggested. It has been reserved for a countryman of Dugald Stewart to make that prophetic announcement, which is indeed worthy of the scientist who not long ago, at a medical meeting, expressed his conviction that there is a sleep centre in the brain, a sort of stop-cock arrangement by which consciousness is turned off at the main. How we are to see the state of the brain cells that causes delusions and lapses of memory is not very evident, but perhaps Dr. Clouston contemplates vivisections of a more startling description than have yet been attempted. As yet the brain cells have not been brought under observation until "after life's fitful fever they sleep well" in chromic acid and carmine; but we can picture to ourselves in the enlightened future a dozen microscopical phrenologists of Dr. Clouston's calibre, each with a Hartnack fastened on to a bump of a living cerebrum, and each disentangling some "ravell'd sleeve of care." The consummation or chimera is, however, still remote, and practically we agree with Dr. Crichton Browne that we shall never accurately make out the molecular changes that correspond with mental aberrations, and that these changes can therefore furnish no direct assistance in the classification of the insanix.

At the risk of being tedious, we must settle this question with Dr. Clouston, because it lies, as he says, "at the threshold of the main enquiry," and if he trips over it there we shall be the better prepared to understand his unsteadiness and stumbling as we accompany him through the many chambers of his logic-house. Dr. Crichton Browne says that we shall never make out the molecular changes that correspond with mental aberrations, and that therefore these can give no direct assistance in the classification of the insanix, and Dr. Clouston characterises this as "a mere assertion." In order to make manifest the hollow-

ness of this assertion he performs a curious feat, which he calls reversing it—as if it were a baby with a button in its throat. “Let us see what reversing all this would bring us to. Day by day it becomes more apparent that we shall soon accurately make out the molecular changes which correspond with mental aberrations, being *on the eve* of mounting a delusion in Canada balsam. It is clear, therefore, that a knowledge of these changes will furnish a direct assistance in the classification of the insanæ. Am I right in holding this position to be as good as the other, and as near truth? Neither of them are true inferences.” Now all this is not reversing Dr. Crichton Browne’s reasoning, but it is stating the contrary; but we shall not insist on that, because we hasten to apprise Dr. Clouston that both the inferences which he pronounces false are true. If the molecular changes can never be discovered they can never be made practically useful; if they are discovered they will probably be made practically useful. Both these inferences are legitimate, and the first is inevitable. But it is not to Dr. Crichton Browne’s inference, but to his affirmation, that Dr. Clouston means to take exception; only, unfortunately, affirmation and inference, inductive and deductive reasoning, are all one to him. What he means is that Dr. Crichton Browne’s proposition is unwarrantable, and to show this he makes the counter proposition which is, he holds, more justifiable. But the difference between them is just this: that while Dr. Crichton Browne’s proposition is in accordance with all human experience, Dr. Clouston’s is opposed to it. Granted that a definite thought and a definite molecular action in the brain do always occur simultaneously, we possess neither the intellectual organ to pass by a process of reasoning from the one to the other, nor the sense organ to perceive the transformation of a nervous excitation into a sensation or of a sensation into a motion. The psychical and the neural process are alike beyond our ken. By the very conditions of their occurrence they defy investigation, and even if the functionally active brain could be submitted to every kind of scientific interrogation, we should still be as far as ever from the desired knowledge. For the brain is a complex organ, the united action of which is indispensable, and any exploration of the action of one set of convolutions, or one area of cells, as ideational, emotional, or sensational, which did not at the same time embrace the contemporaneous changes in all convolutions and all cells would be faulty and fragmentary. Nay, more than this, for the brain is the mere crown of the nervous system, and whilst it is legitimate in a wide sense and with due caution to speak of it as the organ of the mind, and to localise in it certain mental functions, it is never to be forgotten that it is as it were dis-

seminated through every organ, in elements more or less identical in structure with those of which it is itself composed, and which are in intimate functional communication with it, and that it is "the man and not the brain that feels and thinks." "Even were the cerebral cells of the same importance in the psychical mechanism," says Lewes, "as the mainspring is in the mechanism of a watch, we should still deny that sensation and thought were properties of these cells; as we deny that the indication of time is the property of the steel spring. Mind is not a property, it is not even a simple function. It is the aggregate of the sensitive phenomena, and can only be interpreted through the organic condition of these phenomena: in the same way as life is not a property nor a function, but the aggregate of organic properties."

If, then, mind is not an ultimate property of nerve cells, how foolish is it to grope amongst these cells for an explanation of its morbid perversions. If the functional activity of these cells is not discernible, how foolish is it to seek to discover the disorder in that functional activity that corresponds with insanity. And if that disorder cannot be discerned in life, how worse than foolish is it to hope that we shall discern it after death. Will Dr. Clouston now affirm that we are on the eve of mounting a delusion in Canada balsam? Will he assert that Dr. Crichton Browne drew a groundless inference when he wrote "It is clear, therefore, that these changes (molecular brain changes) can furnish no direct assistance in the classification of the insanix?"

We have no desire to undervalue the results obtained by an enquiry into the histology of the brain in insanity, but we think with Dr. Crichton Browne that these are useless for classification, inasmuch as they are degenerative results, and not efficient causes. Dr. Batty Tuke has made the same remark: "Brain lesions are, as far as I know, more the result than the cause of perverted action, even as the atrophy of muscle is dependent on non-action or hypertrophy on over action." But supposing for the sake of argument—though the supposition is preposterous—that there is a brain lesion in every case of insanity, and that Dr. Clouston can single it out; is he then much further, we would ask, towards his accurate pathological classification? Let him listen then to Dr. Brown-Séquard: "Long ago it should have been found out that between the primitive cause of symptomatic manifestations (that cause being located where there is evident organic disease of the brain) and these manifestations themselves there exists a middle term, an intermediate element, which is the efficient or immediate though secondary cause of the symptomatic phenomena or effects. In

other words, it should have been found that the symptoms of a lesion of the brain are not immediate or direct effects of that lesion, but proceed from an unseen but perfectly discoverable alternation in parts of the cerebro-spinal centres more or less distant from the seat of the known lesion." But supposing again that all this is practicable—that in every case of insanity there is a definite lesion, and that Dr. Clouston can thread his way from that lesion to the middle term, and putting his finger upon it, say, Here is the *fons et origo mali*, how is all this to be done during life? We are agreed that a classification must be practical. We are agreed that Canada balsam is not applicable until after death. How are we to make the molecular brain changes available for classification during life? Dr. Clouston is silent. Dr. Crichton Browne's reply is this: There is only one way in which we can approach such changes, and that is through modifications in the outward perceptible signs of the functional activity of the organism. And as in every disease it is the rule to attach primary importance to the modifications in functional activity of that organ or set of organs, which is principally involved, and as the brain and nervous system are principally involved in all varieties of insanity, it must be to the modifications of their functional activity, that we must attach primary importance in studying and in classifying mental diseases. Modifications in consciousness and in action, as ascertained by comparison with healthy standards, these must be our basis of classification. We must be content to seize upon the signs and symbols of insanity, and by a thoughtful analysis and synthesis of these to distinguish as well as we may their cerebral starting-points. Therefore Esquirol was right in founding his divisions upon mental symptoms. This conclusion seems unavoidable.

The illustration given by Skae to show that Esquirol was not right but wrong in founding his divisions on the basis of mental symptoms, was drawn from fevers, and was very minutely dissected and proved a monstrosity by Dr. Crichton Browne. But the demonstration thus afforded has not proved convincing to Dr. Clouston who stands by his master's *non sequitur* with much obduracy. The statement was in effect that to classify the insanias by their mental symptoms is very much the same thing as if we were to classify fevers by the varieties of delirium by which they are characterised. Any schoolboy could expose the fallacy of this. Let us take the converse statement and try how that reads. To classify fevers by the pyrexia is very much the same thing as if we were to classify mental diseases by the bodily temperatures by which they are characterised. That is to say, that to classify one

group of diseases by a symptom of primary importance is very much the same thing as to classify another group by a symptom of altogether secondary consequence. Fevers are bodily diseases, and may or may not be accompanied by mental symptoms. They are properly classified by the bodily symptoms. The insanix are mental disease, and may or may not be accompanied by bodily symptoms. They are properly classified by the mental symptoms. Dr. Clouston, however, is blind to this, and actually asserts that Skae would have been wrong in contrasting the classification of the insanix by the mental symptoms with that of fevers by the pyrexia, because that "would have been taking one kind of symptom in one disease to compare with a different kind in another." How is such a frame of mind to be dealt with? Only by varying the statement again and again, so we shall put it in yet another shape. What is the question? (We constantly break into the Socratic method, for we find it most suitable for Dr. Clouston.) The question is, how shall we classify the insanix. Shall we do so by the mental or the bodily symptoms? By the bodily, cry Drs. Skae and Clouston! Why so? Because—and here is the precious little gem of ratiocination—because when you attempt to classify bodily diseases by mental symptoms you break down. Because the state of the pulse does not enable you to classify diseases of the stomach: it is in vain to hope that changes in the biliary secretion will afford you any help in differentiating the diseases of the liver.

Both Skae and his pupils have again and again condemned Esquirol and others for classifying mental diseases by their mental symptoms, but not one of them has shown what general principle that system of classification violates. The only general argument against it is that it is subjective and metaphysical, which leads us to recommend that all members of the Morningside school should in future prefix to their papers an explication of terms, as they have evidently a jargon of their own which is somewhat unintelligible. If the statements, gestures, movements, conduct of a man—and it is upon an observation of these that Esquirol's divisions are founded—are subjective and metaphysical, then has our education been indeed neglected. We had been under the impression that Esquirol's system proceeded upon the objective aspect of psychology, and was only indirectly connected with the subjective aspect of the subject. We had thought that objective psychology was one of the concrete sciences, which successively decrease in scope as they increase in speciality; and we had thought that subjective psychology was a science too, though of an independent and unique nature: but we speak with great diffidence on such

matter, in the presence of the philosophers of Morningside—the Sensibles, we believe they call themselves—who have evidently caught a distant echo of Courbe. Perhaps the best plan will be to take refuge in Herbert Spencer, who says, “The claims of psychology to rank as a distinct science are thus not smaller, but greater than those of any other science. If its phenomena are contemplated objectively, merely, as nervo-muscular adjustments by which the higher organisms from moment to moment adapt their actions to environing co-existences and sequences, its degree of speciality even then entitles it to a separate place. The moment the element of feeling or consciousness is used to interpret nervo-muscular adjustments as thus exhibited in the living beings around, objective psychology acquires an addition and quite exceptional distinction. And it is further distinguished in being linked by this common element of consciousness, to the totally independent science of subjective psychology—the two forming together a double science, which as a whole is quite *sui generis*.”

The way in which this totally independent science of subjective psychology is spoken of by English students of insanity, and above all by the Morningside Sensibles, is very disheartening, and must humiliate us in the eyes of foreigners. Subjective states and objective states are both existents, and no one can shut his eyes to either the one or the other. Every physician's first question, “Where do you feel pain?” is an appeal to self-consciousness, and an invitation to introspection; and the very terms which an asylum physician must use daily, to wit, feelings, ideas, memories, volitions, sensations, emotions, have acquired their several meanings through self-analysis. And yet Skae and his school pretend to discard not only subjective, but all psychology. As we shall presently see, they will have none of it, but put it in the same category with witchcraft and mesmerism. Dr. Batty Tuke says that it is psychology that has retarded the progress of “Alienistic Medicine;” and, to clench the matter, he invokes the help of Dr. Maudsley, who has said, “The despair of anyone writing upon mental diseases at present is, that he cannot convey just and adequate ideas of them by any care or labour of expression, so long as men will judge them by the revelations of self-consciousness. Such practice is not a whit less absurd than it would be to form conclusions with regard to convulsions on the basis of the recognised power of the will over voluntary muscles.” How this despair is to be converted into confidence, where another vocabulary and code for judgment are to be obtained, Dr. Maudsley has not yet disclosed. His analogous case of absurdity

has not been felicitously chosen, as Dr. Hughlings Jackson has shown that the true way to study convulsions is on the basis of the recognised power of the will over the voluntary muscles, and has indeed applied that principle with brilliant success.

As to the way in which subjective phenomena are to be supplanted, Dr. Clouston has been more communicative than Dr. Maudsley, for repeating Dr. Crichton Browne's pregnant inquiry, "What should we know of a neuralgia, or of a stomach-ache, but for subjective experiences?" he informs us that if a physician, instead of attending to the subjective symptoms in such ailments, "looked at the teeth of his patients, ascertained if they were pregnant or nursing (and patients of both sexes are referred to, be it remarked), examined them for schirrus of the duodenum, or obstruction of the bowels, he would be in a better position to treat them." Now, waving the objection that a physician who in an ordinary case of neuralgia or colic went through all this performance would make himself intolerable, we may just point out that all Dr. Clouston's intricate investigations come after diagnosis and classification, and aid in these not one iota. A patient tells you that he has intense periodic pain in the course of the fifth nerve. You cannot see, hear, touch, taste, nor smell this, and yet you say at once, neuralgia; you diagnose and classify, and you do so upon subjective symptoms. Subsequently you look for decayed teeth, or pregnancy, or hunt up ague or other etiological relations; and these are most important, but they come after classification, and cannot even facilitate it in any way. That must rest upon the subjective symptoms. Suppose the physician dismisses his neuralgic patient, and finding in the next patient who enters his consulting room (really afflicted with gravel) a dozen decayed teeth and pregnancy, following upon ten years' residence in the fens, diagnoses neuralgia, he would probably be laughed at; and why so? because the subjective symptoms are not there. These, in such maladies, are all in all, and without them the somatic symptoms are as nothing. "The etiological method of going to work," as Dr. Clouston terms it, when applied to bodily diseases, at once reveals itself to the meanest capacity as a misleading and treacherous sham, something like the promoting methods of going to work prevalent on the Stock Exchange.

But we are not now interested in advocating the claims of subjective psychology to attentive consideration, and have only referred to it to contest the statement that Esquirol's divisions of mental disease are in any way dependent upon it, as Skae and his pupils imply, not fully understanding what they say. Esquirol was never himself mad, and never affected to have

gone down into the depths of a madman's mind, but he lived amongst madmen ; he conversed with them ; he watched them under varying environments, and at all hours ; he tried them in numerous ways, and noted all their bodily peculiarities and changes ; and, according to the outward display of their sensations, impulses, desires, emotions, sentiments, thoughts, and volitions, he grouped them into great classes, the naturalness of which must be apparent to even non-medical minds. It is erroneous, therefore, to describe Esquirol's system as a metaphysical one, and the only general objection to his method is thus set aside.

But it was not in general, but in particular objections to Esquirol that Skae excelled. Unable to say on principle why Esquirol was wrong in taking symptoms for his basis, he considered himself well capable to demonstrate in practice that the results of such a method must be disappointing. He brought forward three practical objections to Esquirol's classification, which proved it, he believed, to be unsound, unsatisfactory, and uncertain. These were :—1st, That the various so-called forms merge gradually into each other ; 2nd, That forms sometimes change very rapidly ; and 3rd, That forms sooner or later partake of the symptoms of other forms. Under each of these heads Dr. Crichton Browne has replied to Dr. Skae at great length ; and as Dr. Clouston has not touched upon any of them, we may conclude that he admits the force of the reasoning directed against them, and abandons these positions. It may be taken that these objections are withdrawn. While this is satisfactory, for the positions are quite untenable, we cannot help regretting that Dr. Clouston has not thought fit to reply to the comments on Skae's method, made under these several heads. Some very telling points are made against the system to which he is wedded, under each of them ; and the criticism on the case of *folie circulaire* is particularly instructive, as exhibiting how unequal that system is to support the slightest strain.

Instead, however, of answering these comments and parrying the thrusts directed at Skae's classification under cover of them, Dr. Clouston sets himself to another work, to expose the reckless audacity of his opponent. He has come upon a little nest of iniquity that must be harried. "In seven successive sentences" of Dr. Crichton Browne's he has discovered "as many statements as to the opinions and proceedings of Skae and his pupils, every one of which would be repudiated by them." This is indeed an atrocious affair, and must be looked into. Seven violations of the ninth commandment. Seven cardinal sins in seven sentences ! The whole seven of these closely-packed transgressions are not brought to light, but

five of them have been pilloried, and with reference to them we are in a position to decide whether they are sins after all, and are worthy of this public disgrace. The first of them consists in the statement that Skae and his pupils claim to have been the first to insist on the great truth that insanity is a disease of the brain. When and where did they do this? asks Dr. Clouston. Let us consider what might be said in reply. The allegation is that Skae and his pupils claim to have been the first to insist on (not to announce or promulgate) the great truth, that insanity is a disease of the brain, and the paragraph quoted from Dr. Batty Tuke that his nosology was "the first to keep ever before us the all-important principle that insanity is a disease of the body" warrants that allegation, for to insist on a great truth, and to keep ever before us an all-important principle, amounts to pretty much the same thing. But many other passages might be given, setting forth the same claims and even deploring the small success that has attended the propaganda of the all-important principle. Thus Dr. Tuke says, "Insanity is not regarded by the profession at large as a somatic disease," and "It is not difficult to see why insanity is so far behind as to be regarded as a disease of the intellect." He deplores "the general non-acceptance of the pathological fact that insanity is an indication of disease of the brain."

On the whole, judgment will be that Skae and his pupils have made the claims ascribed to them, and the first sin may come out of the pillory where, like many innocent sins before it, it has stood for truth's sake. The second sin is like unto the first, and consists in the assertion that Skae and his pupils have protested against any attempt to apply to insanity (a disease of the brain) the same method of classification that has been applied to disease of all other organs. Nowhere have they done this, says Dr. Clouston. But surely he will not dispute that they have protested against Esquirol's method of classification, that that method has been described by Skae as a "classification of symptoms," or that the diseases of all other organs of the body besides the brain are and must be classified by symptoms. It follows, therefore, that they have protested against an attempt to apply to insanity the same method of classification that has been applied to diseases of all other organs, and sin No. 2 may descend from its "bad eminence." Sin No. 3 consists in the statement that Skae and his pupils have pronounced Esquirol's system unsound because it was founded on clinical observations. Nowhere have they done this, says Dr. Clouston. But surely they have again and again declared that Esquirol's system is

unsound, and is a classification of symptoms, and surely symptoms are clinical observations, and surely their own system is founded on etiology or early history, which are not clinical observations; and surely the necessary corollary of all this is that they have said that Esquirol's system is unsound because it is founded upon clinical observations. And so it comes about that, as Peter Peebles would have said, sin No. 3 is assoilzied. Sins Nos. 4 and 5, when scrutinised, are found to be identical, or at least as like each other as the two Dromios. No. 4 consists in the statement that they give the preference in classification to the fewest and most trivial attributes; and No. 5 in the declaration that they devote their attentions wholly to those circumstances in insanity that have a minimum significance. It would take the eye that is to discover the delusion cell to make out the difference. Not being the possessors of that eye, we shall lump these sins and take them as one: the statement that they classify by minor, and not major attributes. Well, surely this is so. The things to be classified, be it remembered, are mental diseases—not diseases, but mental diseases. Now, what makes them mental diseases but the mental symptoms, which are therefore the major attributes? Just as in bodily diseases the major attributes are the bodily symptoms. Surely anyone who classified bodily diseases by the mental symptoms—and in many diseases there are mental symptoms—would be said to classify by minor attributes, and surely therefore anyone classifying mental diseases by the bodily symptoms may be fairly said to proceed in the same manner. Sins 4 and 5 may go Scot free.

From discharging the august duties of public censor Dr. Clouston returns to Esquirol, for whom he has reserved a *coup de grâce* with which he is to be finally dismissed into oblivion. He has a test that will settle the virtues or shortcomings of his system. "Does Dr. Browne deny that general paralysis, with its alternations of mania, melancholia and dementia, is a true cerebro-mental disease, a distinct clinical symptomatological and pathological reality? If he admits this, how does he classify it among Esquirol's divisions?" How Dr. Crichton Browne would deport himself, what he would say or do under this scathing ordeal, we can only surmise. As for ourselves, if thus cross-examined, we should reply that we at once admit that general paralysis is a distinct disease, or, as Dr. Clouston has it, "a distinct clinical symptomatological and pathological reality," but that we cannot forget that we do not owe any of our knowledge of this disease, which was first differentiated by Calmeil chiefly by its mental symptoms—to Dr. Skae or

his school, although they are in the habit of referring to it, as if it were a little discovery of their own. We should then remind Dr. Clouston that we have not pinned our faith to Esquirol's robes, and are not bound to find a place for general paralysis under his divisions, and we should also remind him that Esquirol himself did what he asks us to do, and lectured upon general paralysis as *Monomanie Ambitieuse* and as *Folie des Grands dans ses rapports avec la Paralyse Générale*. We should add, however, for Dr. Clouston's complete satisfaction, that for ourselves we should class general paralysis among states of mental weakness as a progressive dementia with general paralysis. The alternations of mania and melancholia have not been properly sifted when they have been so designated, and Salomon hits on the essence of the malady when he says, "In the very commencement of the cerebral morbid process the mind appears injured in the conditions fundamentally necessary to the normal discharge of its functions; it is diseased in its very roots."

It is time now to turn from Dr. Skae's objections to Esquirol's system, to Dr. Crichton Browne's objections to Skae's, which Dr. Clouston flatters himself he has put through a very small sieve. These are really ten in number, six having reference to the general principles of the system, and four to some of its details; but Dr. Clouston has been able to make out only eight, and has not understood that they are marshalled in two divisions. And, more than this, he misstates the first objection, which is, he says, that the system has no principle of construction, no bottom: the fact being that the objection urges that, notwithstanding Dr. Clouston's attempt to deprive the system of any principle of construction or bottom, it has one of the worst description, an etiological principle of construction or bottom. In introducing the system in its matured shape to the Royal College of Physicians of Edinburgh, Dr. Clouston laid it down with emphasis, that the principle at the bottom of Skae's system is the "*exclusion of everything mental or psychical connected with insanity*." That, in his view, was its archetypal idea, its crowning glory. But now it appears that after reflection, with admirable self-abnegation, Dr. Clouston is "not much concerned to defend his own definition." We dare say not. We quite believe that he would much rather abandon it; but we object to desertion, and must insist upon Dr. Clouston standing by his bantling—that is evidently the child of long cogitation and agonising throes. "I have ventured to define Skae's system as exclusively *somatic*." "The principle at the bottom of Skae's classification is the *exclusion of everything mental or psychical connected with insanity*,"

and the italics are his. "This is by far the most important principle that ever was adopted in this department of medicine." These passages, and others that might be quoted, embody what is no mere inadvertent expression of Dr. Clouston's, but his deliberate judgment on the system of which he is the chief apostle, and they reveal, better than anything that we can say, his qualification for the work to which he has dedicated his powers. And other members of the Morningside school concur with him as to the propriety of ignoring mental symptoms. For we have Dr. Batty Tuke expressing his "firm conviction that the only means of establishing a definite classification of so-called mental diseases is to adopt pathology as the fundamental principle *without any regard to mental symptoms.*" Conceive a physician talking thus: "I define my classification of renal diseases as exclusively hepatic. The principle at the bottom of my classification is the exclusion of everything urinary, connected with kidney disease." That is parallel to what Dr. Clouston says, and we should prefer not to express our opinion of anyone who could give utterance to such incoherency. Dr. Crichton Browne's statement that Dr. Clouston's attempt at definition—which is defining a thing by what it is not—is a magnificent *reductio ad absurdum* of Skae's system, is quite correct, and Dr. Clouston's clumsy efforts to shake off the charge are more amusing than successful. We are sorry to ruffle his self-complacency, but it would, we must assure him, have been a magnificent *reductio ad absurdum* still, had any one in pleading for the natural system of classification of plants, defined it as the exclusion of everything connected with the number of the stamens and pistils. The definition, or rather no definition, would have been palpably erroneous, and we trust it will never be known to Professor Balfour that any pupil of his suggested it. But even this discreditable suggestion falls short of the absurdity to which Dr. Clouston has committed himself. In the classification of plants, their characters form the basis of classification, and the exclusion of the pistils and stamens from classificatory consideration would only amount to the sacrifice of one set of characters, leaving many other sets still available. But in mental diseases, as we maintain, the mental symptoms form the basis of classification, and the exclusion of these symptoms from classificatory considerations is tantamount to the abandonment of the whole basis. In the classification of mental diseases, the case parallel to that which Dr. Clouston incontinently supposes in the classification of plants would be the exclusion of one set of mental symptoms, *e.g.*, those connected with the propensities or emotions, and in the classification of plants the case parallel to that which

Dr. Clouston recommends in the classification of mental diseases would be the exclusion of everything connected with the root, stem, leaves, flowers, fruit, and seed.

Dr. Clouston himself acknowledges that the definition which we have just been examining was not Skae's, but his; and he practically gives it up, and allows Skae to speak for himself. Dr. Crichton Browne's interpretation of Skae is that his principle was mainly an etiological one, although not altogether so; and here we must notice the curious manner in which opinions are foisted upon Dr. Crichton Browne, in order that they may be controverted and their putative parent discredited. It is represented that he has regarded Skae's classification as having a purely etiological basis. "Thus, Dr. Browne being led away with supposing that Skae's system was a purely etiological one throughout." "It is a pity that Dr. Crichton Browne had stuck to his preconceived idea that Skae's system is a purely 'etiological one.'" "Now both of these statements depend for their truth and force on the theory that Skae's system was entirely an etiological one." By these and other phrases it is sought to create the impression that Dr. Crichton Browne has done flagrant injustice to Skae's system and has trifled with its fundamental principle, while all the time the injustice is done to Dr. Crichton Browne, who reproduces Skae's own words, and studiously avoids going beyond what they warrant. Again and again his words are, "This system is mainly an etiological one." Not once does he hint that it is solely so. Nay, one of his substantiated objections to the system—an objection that Dr. Clouston, while professing to deal exhaustively with his critique, by a strange coincidence never alludes to—is that no one plan of construction is adhered to in it, but that it has five other bases of classification as well as the etiological one. He accuses Skae of inconsistency in shifting his ground so often, and in choosing other besides causal conditions as his guides, and intimates that in no other department of knowledge except medical psychology would a classification with so many distinct bases have received a moment's toleration. It would be prudent, perhaps, in Dr. Clouston to explain how he came to impute to his opponent the statement that Skae's system is an etiological one throughout.

That Skae's system is mainly an etiological one cannot be gainsaid. He has himself so described it, and Dr. Clouston's version of its genesis is as follows: "Any strong characteristic, provided only it was a bodily one, relating to symptoms or pathology, but above all a cause, was seized on and made to do duty in naming some variety of insanity." Dr. Batty Tuke, after mildly chiding Skae for making etiology and not pathology his basis, drifts into the same channel: "If, however, we (mis-

called) "psychologists" (for once we are at one with Dr. Tuke) "are able to refer them" (the varieties of insanity) "to certain common causes, and classify them accordingly, we shall be in the proud position of claiming for our own department a higher stand-point of nosology than can be asserted for any other branch of medicine"—that higher stand-point being the pinnacle of folly.

Seeing, then, that Skae's system is mainly an etiological one, Dr. Crichton Browne was right in examining into the stability of its principle—that is to say, etiological foundation—and most people will think that he was right also in concluding that there is no stability about it. Causes are far too recondite, obscure, and indefinite to serve as a basis for classification. "Alas for our chains or chainlets of causes and effects, which we so assiduously track through certain hand-breadths of years and square miles, when the whole is a broad deep immensity, and each atom is chained and complected with all!" How, out of such a complected immensity, are we to fix upon any one cause as the starting-point of a case of insanity? In almost every case of insanity numerous causes, near and remote, predisposing and exciting, moral and physical, have been at work. By what scientific process are we to give the preference to any one of these, and make it the basis of nomenclature, when we can have no means of gauging what share was taken by each in the production of the result that is before us? "The fern," writes Dr. Bucknill in a recent letter to Dr. Clouston, and we trust he will ponder it well, "is evolved through countless acts of causation which cannot be estimated, and there is no one act of which the most advanced biologist can say, 'This is the cause.'" A disease is not less far-fetched than a fern.

In no department of medicine save that which is concerned with mental disease, has etiology been taken as a basis of classification as Dr. Batty Tuke is aware when he says, "It may be objected that there is no other disease the varieties of which are based on the causating influences." Good reasons should therefore be given for the adoption of so unusual a course, but not a word have Skae or his pupils to say about the broad principles that guided them to their daring experiment. Perhaps we can suggest *how* it was that Dr. Skae contracted his etiological notions. He had read the "*Traité des Maladies Mentales*" of Morel, published in 1860, and he had been much struck by the breadth, ingenuity, and learning of that great work, which has exercised an unmistakable influence over his subsequent writings. It is not within our present purpose to trace out that influence, or to sum up the number of Morel's ideas that Skae has appropriated; but of this we are sure, that anyone who reads the introduction to Morel's Treatise, and the 3rd, 4th,

5th, 6th and 8th chapters of the first book, the 3rd chapter of the second book, and the whole of the fourth book, will not afterwards entertain a very high opinion of Skae's originality. There we have his etiological system. "*J'ai formulé la loi d'une relation intime, nécessaire entre la forme de l'aliénation et la nature de la cause. . . . L'étude de ces causes, leur coordination, la description des phénomènes pathologiques qu'elles déterminent dans les fonctions du système nerveux, nous permettent d'établir plusieurs catégories de malades aliénés, et nous donnent immédiatement l'économie de la classification nouvelle que j'ai adoptée.*" There we have the retention of the old names to designate symptoms. "On le voit donc, je ne rejette ni la manie, ni la mélancolie, ni les divers perversions des sentiments; mais je n'en fais pas les éléments de ma classification." There we have all the arguments used by Skae against Esquirol's symptomaticological classification employed by Morel against the same *bête noire*. "L'enchaînement et la dépendance réciproque des phénomènes nerveux dans la folie depuis la période initiale jusqu'à la période de détermination, la succession plus ou moins régulière de ces phénomènes selon les différentes variétés de la folie, l'alternance entre les symptômes, leurs intermittences, leurs rémissions, ne peuvent se séparer des transformations que subit le délire des aliénés. . . . Esquirol, qui lui-même a donné l'exemple de cette classification dans sa création de la *monomanie* comme genre et des *diverses monomanies* comme variétés, nous avait déjà appris que les anciens, après avoir donné pour caractère de la mélancholie la *tristesse* et la *crainte*, furent forcés de ranger parmi les mélancholies quelques délires partiels entretenus par une violente exaltation de l'imagination ou par des passions vives et gaies. Lorry, qui a si bien décrit la mélancholie, ajoute Esquirol, quoique sa définition consacre l'opinion des anciens, admet une variété de mélancolie compliquée de manie, laquelle a pour signe le délire partiel avec exaltation de l'imagination, avec une passion excitante. Rush, le médecin Anglais, divise la mélancolie en *mélancolie triste* qu'il appelle *tristomanie*, et en *mélancolie gaie*, à laquelle il donne le nom d'*aménomanie*, et constate ainsi, dit Esquirol, les résultats d'une observation que chacun peut faire. Mais quelle confusion une pareille manière de classer les phénomènes ne doit-elle pas jeter dans l'esprit de ceux qui veulent étudier l'aliénation dans sa nature intime, dans sa marche, son développement et sa terminaison, comme maladie rentrant dans le cadre nosologique des affections ordinaires!" There we have in connection with these arguments cases of *folie circulaire*, which closely resemble that quoted by Skae, "Ainsi un aliéné passe trois mois dans la hypermanie, les trois

mois suivant dans la manie; enfin, quatre mois, plus ou moins, dans la démence, tantôt d'une manière irrégulière." Then we have, "La folie causée par la masturbation, la folie dans ses rapports avec la grossesse, dans ses rapports avec l'accouchement, la folie pendant la lactation, la folie héréditaire, la folie hystérique, l'érotomanie, la nymphomanie, le satyriasis, le rhumatisme compliqué de délire, délirium trémens, la dipsomanie, l'alcoolisme chronique, la folie épileptique, la folie hypochondrique, la paralysie générale, délire systématique pendant la période de convalescence de la fièvre typhoïde, l'aliénation d'âge critique, l'aliénation de la menstruation, la folie morale, la folie idiopathique, la folie suivant le mariage."

There we have, in short, almost all Skae's forms, carefully delineated and indeed filled in, in a manner much more complete than he attempted, and there we have certainly the germs of all of them. We do not mean to say that Skae's classification and Morel's are identical; far from it. Although Skae has copied certain portions of Morel's classification, he has varied his own arrangements very considerably. But what we do mean to say is, that Skae has adopted Morel's principles, has derived a large majority of his forms from him, and has availed himself of his labours to an extent that demanded far ampler acknowledgment than he has thought fit to offer. We have no vestige of originality in Skae's classification.

If the genius of Morel failed to secure approbation for an etiological system, it is not to be expected that the mediocrity of Morningside will attain that result. And that the genius of Morel did so fail, no one will doubt who peruses a brilliant article, in which its shortcomings are shown forth with an ability now rare in medico-psychological literature, which was published in the "Journal of Mental Science," in July 1861. An etiological system is, and must be, radically defective, because we can rarely single out one strand from the plexus of causes as that upon which the insanity really depends; because one cause may produce many different varieties of mental aberration; because in a certain number of cases of insanity no cause can be found; and because our whole knowledge of the causes of insanity is founded upon evidence which is seldom trustworthy and often wilfully false. Probability as to causes is all we can arrive at. Certainty as to the nature of disease is what we must aim at.

And here once more we have the distressing conviction forced upon us, that Dr. Clouston does not attach the ordinary every-day meaning to the language he employs. For the word cause he must have a meaning of his own, as he asks, "What is the morbid anatomy of a disease but a branch of its causation?" Now, without discussing the conjunctive nexus, we may say that we had always hitherto believed that a cause was

necessarily antecedent to its effects, so that it is rather staggering to be told that a consequent may be the cause of that of which it is the effect, and that constant succession may go either way, backwards or forwards. This theory, which never occurred to Hume, which is not founded upon the invariableness of nature, is like the kindred proposition that two and two make five, well calculated to necessitate a revision of the universe when once it has been fairly established. But until such time we shall refuse to entertain it, and shall stick to our old prejudices, viz., that a cause must precede an effect, and that morbid changes in tissues or viscera are the consequences, and not the causes, of disease. We shall even decline to assent to Dr. Clouston's more moderate suggestion that causes, could they be accurately discovered, would be the best guides to the grouping of diseases, for we cannot forget that an antecedent is itself a group of causes as a consequent is a group of facts, and that to fix upon one integer in a sum of causes to the neglect of others is unphilosophical and dangerous. Henry I. died of eating lampreys. What was the real cause of his death? The previous condition of his system that made the lampreys disagree with him, or the vomiting that they brought on, or the inflammation of the stomach that the vomiting set up, or the decayed state of the lampreys, or the hot weather that caused the lampreys to decay, or so on to all infinity? Dr. Clouston's idea is that causes are a simple chain, and that it is an easy matter to count up the links. The fact is that they are an ever radiating and expanding labyrinth, and the trunk of a tree has not more radicles than a disease has causes. Who shall trace the one back to its spongioles or the other to its primitive filaments? Who shall say of a root or rootlet, this made the trunk, or of a cause or causelet, this made the disease?

When he speaks of "real causes," "true causes," of "the cause which has the closest and most real relation to the disease," Dr. Clouston probably means what is popularly understood as the disease itself—that is to say, that disordered function or changed structure upon which the symptoms immediately depend. But where is the line to be drawn between the true cause and the symptoms? Instability of certain territories of nerve tissue in this view is the true cause of epilepsy, but the instability is the epilepsy, and without it the epilepsy would not exist. Remove the instability and the epilepsy is no more, remove any other cause setting up the instability, such as a worm in the intestine, and the epilepsy is not necessarily abolished. Then what is this instability but an inference from a group of symptoms? The actual deviation from health, the abnormal performance of those processes which constitute life in an organ or in the organism, is the disease and

not its true cause; and even if we could get at this with certainty during life, it does not follow that it would form any better basis of classification than the symptoms. Inflammation is a term founded upon a grouping and succession of symptoms, that has a well recognised meaning, but in it what might be called the true cause includes a number of true causes, such as changes in the blood vessels and circulation, exudation of liquor sanguinis and migration of the white corpuscles, and alterations in the nutrition of the tissues, which have a successive causal connexion but out of which no one can be properly selected as pre-eminent.

What Dr. Clouston says about real causes, and pathological appearances, as elements in Skae's classification, is like the exclusion of the mental symptoms, an afterthought to patch up defects and reconcile the critics. It is not to be found in Skae's writings, where, moreover, abundant evidence exists that he was not particular in selecting only proximate causes for the bases of his groups, but seized upon conditions of various degrees of remoteness. Malaria is not a proximate cause, nor is adolescence, nor masturbation, nor hysteria, nor connubialism. What Skae does speak of in addition to etiology, or rather as an amplification of it, as the groundwork of his system is the natural history of the disease. But the natural history was after all little more than the etiology, for he gives us an insight into his conception of it. "What we are solicitous to know is the natural history of the disease before us and its cause. Is it a congenital disease? Is it one associated with epilepsy, caused by masturbation, by parturition, or protracted lactation, or some other debilitating cause, or by hard drinking? Is it one connected with phthisis, with the critical period, or with the atheromatous vessels of the senile dement?" His pupils have, however, endeavoured to give a much more liberal interpretation to the phrase natural history. Dr. Clouston would like to make it include causes, symptoms marshalled in order of occurrence, sequence, course and duration, and pathological appearances; and this is all very well on paper, but how will it avail him or those who think with him in the wards? It is at the outset of a case of lunacy, when it is first brought under the observation of the physician, that classification is of most moment. He must then classify it; true, his classification may be provisional and subject to correction, but the constitution of his mind obliges him to give a name to the ailment. And the name is of much more consequence than Dr. Clouston realises. Naming is really diagnosis, and upon diagnosis, prognosis and treatment depend, and also perchance individual liberty, and the fortunes of a family. Now, at the outset of a case how much of the natural history of a case is before the physician?

Clearly not the progress of the case, for that he is expected to modify by treatment ; clearly not its issue, for that is in the womb of the future ; clearly not the morbid anatomy, for that too is undisclosed. All that is before him is as much of the etiology as can be ascertained, and the early symptoms. But the members of the Morningside School can take no cognisance of mental symptoms—those they have for ever forsworn—so that all they can have to form an opinion on is the etiology and the early bodily symptoms. But there are many cases of insanity in which there is no etiology, as every asylum report bears witness, and there are many in which there are no bodily symptoms, so the basis of Skae's classification is sometimes reduced to the dimensions of a mathematical point. How the believers in that classification proceed under such circumstances we cannot profess to know. We were consulted lately by a strong ruddy typically healthy man, aged forty, who had never had a day's illness in his life, and the one pathological spot in whose family history was that a maternal uncle was epileptic. His habits had been temperate and regular, he had been successful in business, and had no trouble on his mind. One afternoon, when walking in the street, he felt restless and excited, and went home, where for a couple of hours he could not sit still, but paced about talking very fast and seeming to see things more clearly than he had ever done before. At the end of the two hours he became tranquil and slept ; but since that attack, which happened a month before he sought our advice, he had been haunted from time to time by suicidal and homicidal promptings. Now strike out the mental symptoms in this case, and what remains of natural history. A healthy man with an epileptic uncle. If Skae's system is to be a mere *post mortem* exercise, if it is only to facilitate the labelling of specimens, then natural history will serve its turn ; but if it is to be clinically useful it will require something more than the natural history *minus* the mental symptoms, that something being these very despised mental symptoms, upon which a considerable number of forms—in the grand etiological and natural history collection—are founded.

So vital is this natural history question that we shall allow Dr. Clouston to express his views fully on the subject:—

“The botanist's idea, viz., the analytical process of separating the characteristics of the plant into those of the class, and those of the class into those of the order, and those of the order into those of the genus, &c.,” was not Skae's idea, and is not the method on which a clinical physician works. “His,” the clinical physician's method, “must be a synthetic process. He must first hear and mark the individual symptoms of a disease ; a disease, I find myself saying, as if it were an entity like a

plant. It is, of course, no such thing, although Dr. Browne talks as if it were. A disease is merely in nine cases out of ten a creation built up by the physician out of individual symptoms, related by the patient, out of the phenomena perceived by himself during life and the appearances noticed after death. Causes of all kinds must come in, symptoms must be marshalled in order of occurrence, sequences, course, and duration; pathological appearances must be correlated with all these, and then the physician with the generalising faculty constructs his fabric and calls it a disease." We have given this extract because we are desirous that our readers should have an opportunity of judging of Dr. Clouston's style for themselves, and should not imagine that we are too uncompromising in our strictures on him, when we tell him as we do now that the paragraph extracted is a mass of clotted nonsense. We have applied to it the analytic and synthetic process, with the nature of which Dr. Clouston is evidently so familiar, and we should give him the benefit of the resulting decomposition and reconstruction. In the first place, the paragraph contains two distinct misrepresentations of Dr. Crichton Browne's views. It represents him as assuming that Dr. Skae's idea was the botanist's, whereas he explicitly expresses his belief that Skae went astray from that idea, and so lost a noble opportunity; and it represents him as talking of disease as if it were an entity like a plant, whereas Dr. Crichton Browne is careful to guard himself against any such misapprehension, and charges Skae's school with the very misconception which is now thrown back at him. His words are, "Skae repeatedly betrays the fact that he regards his forms as specific entities, and not as mere departures from health," a statement that is borne out by Dr. Batty Tuke, who writes, "In fact he (*i.e.* Skae) claims for each of his natural orders all the attributes of a pathological entity." Indisputably Dr. Crichton Browne's view is that a disease is a departure from health. In the second place Dr. Clouston has not grasped the botanist's idea and misunderstands both analysis and synthesis. This gentleman, who sets himself up to tell us what the clinical physician's method ought to be, has derived his notion of analysis from his lessons in practical chemistry, and that of synthesis from the mixing of a plum-pudding. We do not expect him to follow us when we tell him, but we must go through the form all the same, that analysis and synthesis are only two necessary parts of one method—that an analysis without a subsequent synthesis is incomplete, and that a synthesis without a previous analysis is baseless. It is only by the combination of these two procedures that we can ever attain to any comprehension of the infinitude and complexity of nature. The botanist and the

physician both adopt what is substantially the same procedure, although Dr. Clouston represents it as diametrically different. The one, when examining a plant, isolates it from its surroundings, considers its size and shape, fixes his attention on root, stem, leaves, flowers, and fruit successively, and one by one takes in their form, colour, and arrangement, and one by one contrasts them with the like parts of other plants, and then reverses the process, reconstructs the plant, views the parts in relation to each other, and to the whole of which they are constituents, rises step by step, generalising the qualities in which they coincide with others, until an induction is complete. The other, when examining a patient, isolates or selects the indications of disordered from those of healthy function, considers the character of those indications, fixes his attention successively on each of them, contrasts them minutely with similar indications seen in other patients and with several known standards, then reverses the process, combines the symptoms, generalises them, and forms an induction. In the third place, a disease is not in nine cases out of ten a creation of the physician and a fabric of his building up. It exists not in the mind of the physician, but in the body of the patient, and we shall pray to be preserved from Dr. Clouston, physician, with "the generalising faculty," if it is his practice to treat his own creation and not our sufferings, particularly as this creation requires for its completion the appearances noticed after death. Until we read this paragraph and learned that "*in nine cases out of ten*" a disease is merely a creation built up of symptoms related, phenomena perceived, and the *appearances noticed after death*, we had no idea that the mortality in Dr. Clouston's practice was so considerable. For our own part, in more than nine cases out of ten we have been able to create the disease if recognising, naming, and classifying the morbid process is what is meant, without any assistance from *post mortem* appearances. The mode in which Dr. Clouston speaks of a disease as a structure, a fabric, and a creation of the physician, reminds us of one of the answers returned recently at a physiological examination at South Kensington. The question was, "What is the respiration, and how is it brought about?" And the brief and decisive reply of one of the candidates, haunted perhaps by some tradition of the lying-in room was: "The respiration is taking in air, and is brought about by doctors." Dr. Clouston thinks that disease is a fabric which is built up by doctors.

There is one characteristic of the Morningside School as represented by Dr. Clouston to which we must here allude, and that is their narrowness. They think that no good thing is to be found out of their own little coterie. They think "the rustic cackle of their bourg the murmur of

the world." Skae is to them the prophet of a new dispensation; beyond him there is no wisdom. The Morningside bantlings are to be the parents of a new race of psychologists, who are to replenish the earth with judgment and truth, and whoso looks past this interesting brood is merely gazing into "the dark portals of metaphysics." From this it comes about that Skae's progeny concentrate what of vision is given to them upon themselves and upon each other. Self-absorption and mutual admiration—they are for ever patting each other on the back—swallow them up and shut out true culture, for they care not to acquaint themselves with the labours of alienists anterior to the coming of their own peculiar teacher. Authority before him there was none. Until Skae published his classification darkness was upon the face of the deep of lunacy. He struck the sparks whence that illumination in which we now rejoice. For Skae's pupils the growth of knowledge is not a regulated extension sore let and hindered by the stupidity of those who profess to promote it, but a revolutionary expansion sudden and marvellous, owing nothing to tradition or the accumulation of ages. This miserable phase of modern sciolism in which they stand confessed explains some errors into which they fall which would otherwise be quite inexplicable. It explains, for instance, Dr. Clouston's strange blunder in accusing Dr. Crichton Browne of having borrowed the names of hysterical mania and senile dementia from Dr. Skae. Who, he demands, assigned hysterical mania its name but Dr. Skae? Senile dementia, he affirms, is a variety formed on Skae's principles. Why, both these forms of insanity were recognised and named before Skae was born into asylum life; and had Dr. Clouston looked into any standard work on insanity, he would have discovered this. Esquirol described *Démence Senile*, and *La Folie compliquée avec Hystérie*, and Forbes Winslow, Coupland, Griesinger, and a dozen others that might be named, have employed these titles, and exhibited as correct an acquaintance as Skae possessed with the pathological conditions which they represent.

In discussing the soundness of the main foundation of Skae's classification, we have disposed of the question as to its practical utility. If the principal foundation is insecure, not much confidence can be reposed in the superstructure. To illustrate the inherent practical weakness of an etiological system Dr. Crichton Browne enumerated the etiological conditions of six cases of insanity, two being adduced to show the frequent impracticability of getting at any causes, and four to show the number of causes, any one of which would be a group-basis to Skae, that often play a part in the evolu-

tion of one case. Dr. Clouston has wasted a vast amount of energy on these cases, and has conceded exactly what Dr. Crichton Browne wanted after all. Out of a bundle of causes in each case he selects one in the most arbitrary manner, at his own sweet pleasure, not that which is the closest to the disease, but just that which fits in best with his own views.

We could have no better criterion of the practical value of Skae's system than its success as applied by himself. We shall therefore follow him in his full practical exposition of one of his forms, and we shall then have the satisfaction of knowing that his system has been treated with no unfairness, but that its practical merits have been shown forth in the best possible manner. The book opens at post-connubial insanity, a form of mental disease—if it be a form—that Skae was the first in this country to recognise and name. What has he to say about it, and what sort of cases are they that he arranges under it? All that he has to say about it is “that it is connected with the sexual organs, or more correctly speaking of (*sic*) the sexual orgasm,” a statement that might induce us to regard certain problems that a great mathematician solved during coition as specimens of post-connubial insanity, because they were connected with the sexual orgasm. Positively, that is the only generalised statement that Skae has to make about this particular disease. After making it he at once wanders off, in his usual discursive style, into a touch-and-go survey of cases interspersed with a few irrelevant anecdotal remarks that remind one of a showman exhibiting a collection of waxworks, more than of a physician bestowing the fruits of his experience, and unfolding with scrupulous care, and large sweep of intellect, the great *schema* that it has been his life's labour to prepare. He never rises to the height of his great argument, or apprehends the truth that he is addressing men of full-grown and trained faculties who demand strong nourishment of him who would purvey for them, and will not be put off with scraps of fanciful confectionery. He never threshes and winnows from his cases their grains of real worth, that he may elaborate these into the bread of knowledge for the pinched and starved disciples of Esquirol, whom he has promised to feed, but he gathers up a bundle of cases, twists them together, straw, chaff, and all, and handing the wisp to the hungry throng, says with a grace and *bonhomie* that deprive even a disappointed appetite of its sting, Gentlemen be so good as to help yourselves!

Now let us analyse the wisp of cases that is to satisfy the natural craving for knowledge about post-connubial insanity, and that takes the place of a reasoned comprehensive illustrated description of that disease. Let us see what sort of cases are

included under post-connubial insanity, so that perchance we may be able to form for ourselves some general systematised conception of the disease that may dwell with us, and be of practical service in dealing with cases that may come before us hereafter. The first cases mentioned are some in which "the first night of connubial felicity was followed in the male by attacks of congestion amounting to something like congestive apoplexy, although of transient duration, or resembling the epileptiform congestive attacks of general paralysis." We begin to see a glimmering of light. Unconsciousness, or partial coma, diminished sensibility, clonic spasms, raised temperature, livid features, rapid pulse, laboured breathing following upon coition, and all of a transient type—these are the symptoms of post-connubial insanity. We are reassured there is something in Skae's system after all! But our eye rests on the next sentence, and confusion worse confounded overtakes us. "More often," adds Skae, "the symptoms of post-connubial insanity are those of acute dementia." Let us try again. Mental torpor, enfeebled attention, defective memory, palsied will, blunted senses, sluggish movement, partial catalepsy, vacant expression, cold extremities, shallow breathing, feeble pulse, lowered temperature, occurring in a young person immediately after marriage may then be taken as the symptoms of this disease. But how do these symptoms correspond with those previously enumerated? Well may we feel bewildered. Faith, however, in Skae's judgment must make us misdoubt our own penetration, and encourage us to an effort to recover our bearings. We shall suppose that there are two great types of post-connubial insanity, differentiated from each other in their outward manifestations, but linked together in their common origin, in a state of cerebral exhaustion, following upon unaccustomed sexual indulgence, combined with emotional disturbance. Ah! no such easy outlet is permitted to us from the slough of rational despond. As we are just struggling on to *terra firma*, Skae pushes us back once more into the clogging depths: "In females," he proceeds, "the symptoms are better marked and more peculiar." And then, of course, he launches into a case, the symptoms of which may be thus summarised: moroseless, remorse for having married, repugnance to her husband, following upon a suitable match. No bodily symptoms, mark! to characterise this case; nothing but the contemned mental symptoms are given, and these are the symptoms of simple melancholia. But in what way do these symptoms resemble those of acute dementia, or of an attack of congestive apoplexy? "Oh, but," it may be observed, "we are now dealing with post-connubial insanity in the female, and that must,

of course, differ from the same disease in the male." Admitted. We are fully alive to the fact that sex implies a group of differences between man and woman which extends to all mental disorders, but we are not aware that any sound standard of comparison between masculine and feminine human nature would warrant such a vast sexual divergence as is here assumed to characterise the two types of one and the same disease. Glance at the differences between general paralysis in the male and general paralysis in the female, and say whether they create such a gap as that which separates congestive apoplexy and simple melancholia. But the sexual explanation will not answer the purpose here, for after the case of simple melancholia Skae sketches, with unusual precision of touch, what he calls a typical case of connubial insanity in the female, that is just one of acute dementia as often seen in the male. Another case also he gives of post-connubial insanity in a woman, and that plunges us in worse despair than ever, and further complicates the problem; for it is a case neither of congestive apoplexy, simple melancholia, nor acute dementia, but of acute melancholia. A young lady, immediately after the consummation of a very proper and approved good marriage, became intensely melancholy and suicidal. She walked up and down night and day for three months, wringing her hands, and with a face full of wretchedness, repeating the words unceasingly, "Oh, misery, misery!" She was fed by force, attempted suicide in a variety of ways, and ultimately succeeded in hanging herself. We could almost echo that unhappy lady's sentiments, and cry, oh misery, misery! for post-connubialism is a trial to us, as it was to her, and the more we try to understand it the thicker do perplexities accumulate upon us. We are, perhaps, laying ourselves open to the witticisms of facetious critics but in sheer helplessness we must ask in what feature does this case resemble those that have preceded it, as instances of post-connubial insanity. And the only reply that seems possible is, that it resembles them just as much as it does the next post-connubial case that is quoted, which is one of general paralysis. Incredible as it may seem, this is yet strictly correct. A gentleman, whose wooing by proxy is described with gusto, immediately after his marriage took the greatest repugnance to his wife and threatened her with a knife. During four years his marital attentions were purely of a menacing character, and at the end of that time he fell into errors of memory, and grandiose ideas, which proved to be symptomatic of general paralysis, which soon closed in death. "Whether the sudden and excessive development of the sexual desire was the cause and precursor of the general paralysis, or whether it was part of the early *symptoms* of

the disease I shall not detain you now to inquire," are the words with which Skae finishes his consideration of post-connubial insanity and his lecture. As far as we can ascertain, the pressing inquiry thus postponed was never subsequently undertaken, so that we are left in doubt as to Skae's real view of the case. It is however introduced under the heading post-connubial insanity, as "bearing upon several suggested points," and not as an aid to differential diagnosis, and as it is as directly connected with the post-connubial condition as any other case adduced, we are at liberty to conclude that it is thrown in as another possible variety of post-connubial insanity, and our suspense as to what that disease is or is not has reached a climax. Let us in a final struggle for enlightenment, draw up in line Dr. Skae's contingent of post-connubials, and see what is to be made of them.

A case of congestive apoplexy.

A case of acute dementia.

A case of simple melancholia.

A case of acute melancholia.

A case of general paralysis.

What is there we again ask in common in all these cases, except the occurrence of the disease after a particular event, with which it has not been shown to be specially connected? We have known measles, and scarlatina, and small-pox come on immediately after marriage. Would it be advisable then to bracket these together as post-connubial exanthems? Even supposing (what is by no means established) that in each of Skae's cases the marriage and its accompaniments did have an actual causal relation to the mental disease, is it not clear that that causal relation was of an accidental and not of a necessary character? Is it not clear that the orgasm or excitement was merely the spark applied to a train long laid and leading to a prepared catastrophe, and would not any other spark have done just as well? Business losses are followed by cases of insanity, varying not more amongst themselves than Skae's cases of post-connubial madness. Does anyone suggest that we should have the insanity of pecuniary embarrassments? Any lecturer on medicine who taught his students that because influenza, whooping cough and diarrhoea sometimes follow a visit to the seaside, they should be classed together as post-marine diseases, would be jeered out of his chair; and yet the Fellows of the Royal College of Physicians of Edinburgh were asked to listen to this disquisition about post-connubial insanity, and had presented to them as illustrative of that disease a set of cases that have no alliance with each other. We should much like to ask Dr. Clouston how the practical value of Skae's system which he so

vaunts is shown forth in this post-connubial group, how does it aid us in prognosis and treatment here? Does he venture to say that the diverse cases assembled under it are to be similarly treated, or that they are likely to pursue the same course and to have the same termination? That they are to be similarly treated Dr. Clouston has the boldness to affirm, and his practice is to give them all champagne, oysters, and nitro-muriatic acid with the view of calming their uxoriousness, another type of post-connubial insanity not mentioned by Skae. Lord Byron is not perhaps a good authority on uxoriousness, but on the passions he is entitled to speak with some weight, and his dictum, which we commend to Dr. Clouston's consideration, is "Eggs, oysters too, are amatory food."

It must now, we believe, be tolerably plain that post-connubial insanity is a mere figment of the imagination, and a concoction of incompatibles. It is built upon the shifting sands of etiology. The first canon of classification that those things must be put nearest together which are nearest alike has been violated in its composition, while no minor practical advantage has been obtained. It must not be thought, however, that this form of insanity is a peculiarly vulnerable point in Skae's system, and that it has therefore been selected for more minute examination. Several other forms are equally wanting in stamina. Those forms that have been borrowed from other systems, have more cohesion in them and are less impressible by criticism, although even into some of them he has succeeded in importing an element of weakness; but wherever he has applied his own classificatory process, there he has constructed a form that crumbles when touched or even when it is looked at. We are ready to show, and should do so here but that time is precious and patience limited, that half-a-dozen other forms are as irrational, unreal and impracticable as post-connubial insanity. As regards some forms, even Skae's own pupils have faltered in their allegiance. "Mania of Oxaluria," writes Dr. Batty Tuke, "can hardly be regarded as a natural family, from the mere fact of the occurrence of the salt in certain cases, as its presence must be regarded as a consequence not a cause of such diseases as climacteric or idiopathic insanity; moreover, oxalates are generally found in cases where melancholia (not mania) is the leading mental symptom." If the presence of oxalates in the urine is to be regarded as proof of this disease, then we have known a whole asylum full of patients to be labouring under it at one time, on the day after a rhubarb dinner. But very scanty information about it is to be procured, for all that Skae has to say about it is made up of a few extracts from Golding Bird, Begbie, Bence Jones, and

other authors, and the only case quoted is supplied from the Royal Infirmary of Edinburgh, by Dr. Grainger Stewart. We are not indebted to Skae for the knowledge that depression of spirits is a symptom of oxaluria, and that oxaluria is an occasional symptom of hypochondriasis. Dr. Clouston argues on behalf of the late Dr. Skae that even should the oxaluria be the *result* of the disordered brain action instead of its *cause*, it would still be a fitting group basis in his system, that system which we are reminded again and again contains so much variety. "While the authors of other systems have nearly all tried to go on some definite principle or other, to have their nosological pigeon-holes all of a size and all in a row, he was content to have much variety in everything about it." Exactly so! eschewing pigeon-holes he took refuge in the waste-paper basket, where one can have variety to his heart's content.

In answer to Dr. Crichton Browne's taunt that there are not a dozen asylums in England to-day in which Skae's classification is employed, Dr. Clouston retorts that there are not a dozen asylums in England in which many of its terms, and that somatic mode of looking at cases to which it gave so great an impulse, do not prevail. The retort gives the word of promise to our ear, but breaks it to our hope. It is denied that Skae's classification gave any fresh impetus to the study of the bodily symptoms of insanity. Any old asylum case book will show that the somatic symptoms of insanity have all along had the lion's share of attention, and the work of the phrenologists, Feuchtersleben and others, gave prominence to the somatic aspects of mental diseases while Skae was yet an undergraduate. Truly many of the terms of Skae's classification are in use in every asylum in the land, but so they were before it was conceived, and so they will be after it is forgotten. These terms are they which were in circulation before Skae's time, and which he appropriated, such as general paralysis, nymphomania, and not those which he himself coined, such as the insanity of pubescence and podagrous insanity. The reproach is that Skae's classification—so practical, so useful, as it is said to be—has not been laid hold of by those who are likely to know a practical and useful article, and that *its* terms, its distinctive terms, and not those which it has borrowed, have not entered into asylum phraseology. A test of the extent to which Skae's system has made way occurs to us, and we take up a sheaf of Asylum Reports that is lying upon the table, the last that have come to hand. We shall not burden our pages with the titles of these reports, but a list of them shall be supplied to Dr. Clouston should he desire to possess it. Suffice it to say that the fasciculus includes thirty-four English reports in not one

of which is Skae's classification adopted, and two English reports in which its influence is apparent; eleven Scotch reports, in six of which the classification is mental, in two of which no classification is attempted, and in three of which Skae's classification is employed; four Irish reports, with no trace of Skae's classification in them; and twenty-six American reports, from which all recognition of it is absent.

It is all very well for Dr. Clouston to protest that Dr. Maudsley in each successive edition has seemed to make more and more of it; that Blandford has assigned it a good place amongst other systems; that Hack Tuke has given praise to it; and that Bucknill has incorporated its nomenclature in his own classification. Does he pretend that anyone of these eminent medical psychologists, has fully adopted it, and made use of it? Can he name one convert to the classification in France, Germany, or America? Can he name an English convert who has not been a pupil of Skae's? Do not Laycock, Sankey, Lockhart Robertson, Harrington Tuke, Monro, Lalor, Duncan, Rogers, Parsey, Hitchman, Boyd, Lauder Lindsay, Jamieson, and a host of other leaders in the medico-psychological speciality, abjure and repudiate it? Did not Dr. Crichton Browne's attack upon it give lively and wide-spread satisfaction, because it embodied adverse criticism which had passed across the minds of many, but which, neglecting Captain Cuttle's advice, they had not made a note of? Until Dr. Clouston can dispose of these interrogatories he need not trouble himself with special pleadings. Dr. Mitchell's declaration, again quoted, that Skae's classification has taken hold of the medical mind, ought not to be repeated until the comment already made upon it—that it has no adequate warrant—has been combatted. Dr. Mitchell offers no proof of the allegation, except that papers have appeared in the medical journals with headings drawn from Skae's nomenclature, but he has not taken up the challenge to point to any such papers that have not been by Skae's own pupils. The hold on the medical mind must be down in the unrevealed depths of consciousness, as the spoken utterances of the said mind have been decidedly adverse to the system. But a greater authority than Dr. Mitchell has spoken on this matter, and by his deliverance we are content to abide as to the progress made by Skae's system, and the acceptance accorded to it. Dr. Clouston himself has summed up the matter by assuring us that Pinel and Esquirol's five famous genera are "still adopted in medicine, literature, jurisprudence, and official statistics." Where, then, is Skae's foothold? In Morningside.

Dr. Crichton Browne's objection that Skae's system with-

draws attention from clinical observation is branded as an empty calumny, and is dismissed as undeserving of serious disproof. It is even darkly hinted that such a slander is enough to disturb Skae in the "eternal science," which is Dr. Clouston's dreary conception of another world, and we almost expect the table to tilt as we repeat the slander, and vigorous raps out of the eternal silence to admonish us for our temerity. But *magna est veritas*, so we valiantly rehearse the so-called calumny, and maintain that Skae's system does withdraw attention from clinical observation, as every mainly etiological system must. To what is clinical observation directed? To symptoms! symptoms! symptoms! What at the bedside must etiology and pathology necessarily be? Why, to a great extent, clinical hearsay and clinical conjecture. But Skae's system is founded upon etiology, and to it, therefore, symptoms must be of minor interest. A large majority of medical men are bent upon relieving suffering and curing their patients, and only to a few is given that higher enthusiasm that pursues knowledge for its own sake. Now, what to the majority of medical men is the great stimulus to the minute and persevering observance of symptoms? Why, the desire to recognise, to name, to classify the malady for which their advice is sought; to predict its course, and to modify its progress. Will that stimulus remain if the first words of the patient or his friends suffice to justify the recognition, naming, classification, prognosis, and treatment? Which medical man is most likely to carry on minute clinical observations, he who by a study of the symptoms has to make out for himself in a particular case, through the mental and motor impairment, that there is organic dementia, due to a clot and softening involving the superior temporo-sphenoidal gyrus, or he who, being told that the patient's illness dated from a blow on the head, is able to say off-hand traumatic insanity?

The allegation that an etiological system discourages clinical work ought not to require vindication. The inevitable tendency of such a system must be to take from the shoulders of the physician his proper responsibility, and to relieve him from the obligation of laborious investigation. So dangerous is etiology in this respect, that several well-known surgeons and physicians decline to hear the histories of the cases brought to them until after they have made their first examination, so that they may note symptoms with minds free from that bias so often misguiding and deluding that is apt to be given by that mixture of guesses and grumbles, in which history so often consists.

It is much to be deplored that Dr. Clouston's ill-chosen

encomiums so often necessitate references to Skae that are not of that graceful character that we should now alone wish to indulge in. We have a respectful, admiring recollection of him as a man of capacious intellect and genial sentiments, who commanded the affectionate regard of all who approached him, but we cannot bring ourselves to say that he was a great clinician. That he had all the talents that go to the making of a great clinician we cordially allow, but that he put these talents out to usury we cannot admit. His mode of work was essentially unclinical, and Dr. Clouston, in extolling him as a clinician, must have forgotten that many who attended Skae's lectures and demonstrations in the wards of Morningside still survive. Their reminiscences, as far as we can ascertain, bear out the statement that he was never seen to make a genuine clinical examination, or to use an instrument of precision, but that his practice was, most dexterously, in a few sentences, to rattle a patient's mind of its madness, and then with jaunty reflection and acute foresight, and sometimes with broad humour, to comment upon the madness and the madman. He paid much more attention to the mental symptoms in his asylum than in his classification, but he was never a clinician, which is all the more to be regretted as some of his assistants would evidently have been much benefited by that clinical training which it was in his power to give. Of his classification it must still remain true that it withdraws attention from clinical observations, and is thereby pernicious.

We have before alluded to the circumstance that Dr. Clouston doubtless inadvertently, but very unfortunately, has overlooked one of Dr. Crichton Browne's most formidable assaults on Skae's classification, his objection that it has not one but several bases. We again refer to the matter because the objection properly comes in here in Dr. Crichton Browne's essay, following that which we have just considered as to the influence of the system in interfering with clinical work, and also because we believe it has great intrinsic importance, and is destructive to the system if not rebutted. It is impossible to find any parallel to Skae's system in this respect, and we fancy its advocates will be puzzled to point to an instance in which the ground of classification is thus changed, and it is indeed difficult to conjure up a corresponding absurdity. Were a lecturer on the theory of music to announce, "I shall classify musical sounds as follows: some by their loudness, others by their pitch, others by their *timbre*, others by the musical instruments by which they are produced, and others by the colour of the hair of the men playing these musical instruments," his method thus propounded would not be more gro-

tesque than Skae's, nor more barren of edification. Can there be any likelihood that a system which is constructed partly on etiology, partly on mental symptoms, partly on bodily symptoms, partly on pathological changes, partly on constitutional conditions, and partly on epidemic prevalence, will have consistency or strength, or will help us to understand the diseased modifications of consciousness in living organisms? Till Skae's pupils can so transform his system that all its groups shall have one kind of basis, they need not seek for it the sympathy of thinking men; at present there is no plan of construction in it. It is only a fortuitous concourse of atoms.

Turning to the fourth charge brought against Skae's classification by Dr. Crichton Browne, that it is incomplete, we find that a plea of guilty has been entered, but that as usual the precise nature of the charge has been misapprehended. "I admit the proposition that the system is not yet complete," and this Dr. Clouston says without perceiving that the admission is fatal to the system and proves it to be no system at all. His idea evidently is, that the charge amounts to this that the system is not perfect, and is capable of amendment, but it really is a much more serious indictment, setting forth that the system does not cover the ground which it professes to occupy, but leaves large tracts unenclosed. Imperfection would not be a valid objection, for that applies to all human work. That some groups required to be subdivided, that the frontiers of others needed rectification from time to time, that even new groups had to be added in the progress of years, would not vitiate the system, would, indeed, rather commend it; for science is nothing more than systemised experience, and as experience enlarges, science becomes more precise, and terms and names must be varied and corrected. In a progressive science, like medical psychology, such variations, corrections, and extensions, must be frequent to keep pace with the march of discovery, with ideational differentiation and evolution, with the changes in the character of disease wrought by ever changing environment, so that if Skae's system required entire re-arrangement every ten years, as we are told that the system of chemical nomenclature will do, we should not have a word to say against it on that account. Our objection is, not that it is imperfect and may require modification, but that it is incomplete and does not include a large proportion of the object matter that it professes to classify, this imperfection being the result of an inherent vice in its constitution. Chemical classification is imperfect, and will undergo modification, but it is not incomplete. There is no substance that cannot at present be referred to certain known elements. There is none with reference to which the chemist has to say,

I cannot name the constituents of this substance and do not know to what class to refer it. What should we think of our classification of the parts of speech if we were constantly coming upon words that would not fit into any one of them?

Here are one hundred insane persons to be arranged in groups which will enable us to understand their relations to each other, their tendencies, their prospects, and the remedial measures which should be adopted. Let Dr. Clouston try his plan and see the result. He sorts them out into thirty-four groups, and then on his own showing twelve cases remain that cannot by any exercise of ingenuity be forced into any one of these. Let a follower of Esquirol try his plan (which, remark, we do not consider satisfactory nor recommend), and see what a very different result is obtained. He separates them into half-a-dozen lots, and not a single case is over, as an unclassifiable residuum. It is hard to imagine what would be thought or said in a general hospital, if in twelve per cent. of all the cases admitted the malady could not be recognised nor named. Probably a change in the medical staff would not be long delayed.

Dr. Clouston says that Skae's classification breaks down in only twelve per cent. of cases, but others allege that it fails utterly in thirty per cent. Perhaps the truth lies between the two, although it is no great matter where it lies, for is it not now obvious that the said classification, however applied, and to whatever extent it may avail for the assortment of cases, is still worthless? It has been told in Gath and published in the streets of Askelon (though, of course, we cannot vouch for the truth of the rumour) that rash attempts to apply the system in the wards of Morningside in the presence of illustrious strangers have eventuated in painful exhibitions of its impotency.

As to the incompleteness of the system, not more need be said than that it "is another indication that he (Skæ) never took a wide all-embracing survey of the district which he undertook to map out for the benefit of mankind. He made erratic inroads upon it, and penned off irregular allotments here and there, but he left some territory untouched, and the end of his labour is confusion and bewilderment."

Having granted that Skæ's system is incomplete, its champion advances to do battle with another objection with which it has been assailed. "The next objection we come to," he remarks, "is, that there is no gradation, social arrangement, nor harmony" in it, a sentence that caused us swimming in the head, and induced a nightmare vision of Skæ's happy family of thirty-four forms, socially hobnobbing and singing *Gaudeamus igitur* in the Cave of Harmony. No gradation,

social arrangement, nor harmony; we should never have fathomed this had we not gone to Dr. Crichton Browne's paper, and there the riddle was read. What Dr. Clouston treats as one objection is really two that are kept carefully separate, and that we might almost say are alternative objections. The first is that there is no gradation in it; the second, that there is no *serial* arrangement, which Dr. Clouston, by no slip of the pen or printer's error, converts into *social* arrangement. He has evidently never heard of *serial arrangement*; so, although the term is twice made use of, and although the periphrastic equivalents, "linear order of progression," "lines of normal evolution," are also used, all that he can make of it is *social arrangement* or harmony—the word harmony not being employed at all by Dr. Crichton Browne in connection with this objection, but being a gratuitous addition of Dr. Clouston. The allegations of want of social arrangement or harmony he designates an æsthetical objection, which gives us a little insight into what he conceives the æsthetical emotions to be, and reminds us that there is one of them, the sense of the ludicrous, which he stimulates almost too copiously in his readers. About the absence of serial arrangement—which he has not comprehended—he has not of course a word to say, but, like a retiring cuttle-fish, he shelters himself behind a squirt of ink, reproducing from Dr. Crichton Browne's critique a number of sentences that have no bearing upon the point in arbitration. It is quite curious to notice how ready Dr. Clouston is to adopt his antagonist's *ipsissima verba* when any psychological point is in dispute, and how rarely he favours us with his own philosophical lisps. And it is even more curious to notice how pertinaciously he shrinks from any logical exercise of thought. The argument now pressed home is, that Skae's classification has neither gradation nor serial arrangement, and is therefore unsound; and that argument is met by some quotations to this effect—that the phenomena of disease are varied; that the functions of the nervous system cannot be classified with the same precision as can animals and plants, and that forms of insanity merge into each other.

The quotations are irrelevant; the difficulties that they point to are supposed to have been overcome by Skae, who is maintained to have seen through the varied phenomena of disease into the permanent kernel, and to have classified with precision thirty-four forms of insanity that do not merge into each other, or at least not to any such extent as to render a boundary line impracticable. The question now is, not as to the classification of cases of insanity or nervous diseases, but as to the classification of alleged forms of insanity, and the

inference is that as these forms are not classified, are not classifiable, and are not even arranged in strata corresponding with the stratification of nervous structure and function, their inventor did not know what scientific classification is, and ought not to have attempted it.

There is a reciprocal alliance between classification and reasoning—the one presupposes the other. Reasoning is the classification of relations, but this involves the classification of the things or attributes between which these relations subsist, and the intuition common to both reasoning and classifications. We are compelled to classify and to reason, alike by objective conditions and by the necessities of the thinking subject itself, and we cannot stop short in the process at a first generalisation. If we did so, how could the infinity of nature ever be brought down to the finitude of man? But we cannot do so. By a first generalisation we obtain a number of classes of resembling individuals. By a second generalisation we compare these classes together, observe their similarities, abstract from their differences, and bestow on their common circumstances a common name. By a third generalisation we again perform on these second-classes the same operation, and thus ascend to very wide notions. And this is just what Skae has not done. By a cursory indiscriminating survey of insane persons, he made out, or believed he made out, thirty-four classes made up of individual cases, but any survey of these classes in order to trace out agreements and differences between them, he never essayed to make. He added class after class, just as it occurred to him, and without any reference to its place in his system, and sought not to advance from the many and the special to the one and the general. Where only thirty-four classes are concerned the want of gradation and serial arrangement is not so instantly perceived as when a larger body of particulars have to be dealt with, although even then the want is generally damaging to the character of the system. But let anyone conceive what natural history would be if the species or genus was the highest term, and he will then comprehend how practically essential, as well as philosophically reasonable, gradation of classes is. The want of gradation in Skae's system—all question as to serial arrangement being discarded—although at first pronounced by Dr. Clouston an æsthetical objection, is immediately afterwards looked at in quite another light. He has thought over the matter, or taken advice regarding it, and, changing front, responds to it that Dr. Batty Tuke, in what is of course "an excellent paper," published in 1870, has shown how naturally Skae's groups fall into seven classes arranged by Dr. Tuke. Dr. Clouston therefore admits the gravamen of Dr.

Crichton Browne's charge, and acknowledges that when the classification was originally promulgated there was no gradation in it. He hastens to show that it has been since freed from this blemish, but in doing so he mistakes the true gist of the charge. It is of no great moment whether or not Skae's forms have now been assorted into groups of higher generality. The point is, that they were not so at first assorted, but were thrown out in most admired disorder, a fact which indicates that Skae's method was unmethodical, and that he had no clear notion of what he was doing, and no genius for classification. To call a writer who hurled thirty-four distinct unassociated forms of insanity upon his profession "the Cullen of psychiatric medicine," is either fulsome adulation or blind prejudice. But the approval with which Dr. Tuke's grouping of Skae's forms is now received is somewhat singular. If that grouping is so excellent and supplies so grievous a want in Skae's system, why was it not sooner adopted? Dr. Tuke's paper embodying that grouping was published in 1870, and Skae's *Morrisonian Lectures* were written after that and were published in 1873, being edited by Dr. Clouston. But in these *Lectures* no notice is taken of Dr. Tuke's grouping, and in the first lecture the thirty-four forms are again enumerated in the old style, with no attempt at gradation. And when we come to scrutinise Dr. Tuke's grouping, we find that it is not a grouping of Skae's forms, but of something altogether different. Dr. Skae and Dr. Tuke have been to the same fountains, Morel and Vander Kolk, but each has drawn water in his own pail. Tuke does not accept Skae's basis of classification, and takes exception to several parts of his nosology; he excludes six of Skae's forms from his table, and introduces three little forms on his own account, of which the most remarkable is *limopsoitos*. In so far as it does contain a rational arrangement of sub-classes into classes, and in so far as it is more consistent throughout, Tuke's classification is greatly superior to Skae's; but it possesses defects that are all its own, and dwindles into insignificance when looked at from the first round of the philosophical ladder. It is something, however, that it recognises the necessity of some gradation such as that which prevails amongst the natural order of plants and animals. To appreciate the difference in practical value between a true and a spurious gradation in the matter of mental disease, one has only to contrast that of Grisenger with that of Dr. Batty Tuke.

Having now finished our scrutiny of Dr. Crichton Browne's general objections to Skae's classification, and Dr. Clouston's rejoinders to these objections, we may briefly dispose of four special objections to the details of it, which out of many such

Dr. Crichton Browne has thought fit to send to the front. These are :—1. That the classification contains a group named idiopathic insanity, in which a heterogeneous mob of cases is assembled. 2. That some of the etiological groups are founded, not on definite or true causes, but upon a course or period of life. 3. That consequences of disease are confused with causes. 4. That physiological processes are regarded as morbid agencies.

None of these objections has Dr. Clouston been able to refute, and to none of them has he been able to make a fair show of resistance. That idiopathic insanity is an anomaly in such a system as Skae's, as indeed all its critics have agreed, he cannot deny; but he evades the true force of the argument, and maintains, what is not disputed, that idiopathic insanity actually exists, failing to see that what he had to do was to justify the presence of such a group in Skae's etiological and pathological system. That system starts with the assumption that there is no idiopathic insanity, and ends with the conclusion that it is a common form. It is due, we are informed, to moral causes; but do not moral causes play a part in the production of a score of other forms, and on what principle are they fastened upon here and reflected elsewhere? Idiopathic insanity is indeed a Gehenna, as Dr. Batty Tuke has called it. It swallows up the incidentals and sundries of some confused transactions, and what these incidentals and sundries are no accountant, chartered or unchartered, has as yet made out.

That several of Skae's forms are founded not on a definite cause but on a whole period of life, will not be contradicted, and that such foundation is treacherous cannot be disproved. Climacteric insanity, Dr. Clouston explains, is not intended to include every species of mental derangement occurring in the male between 50 and 60, and in the female between 40 and 50. What it does embrace he is not careful to tell us, but he implies that it is marked out by a definite group of mental symptoms; we have ransacked Skae's writings, but with no better fortune than to find ranged under climacteric insanity every mental symptom of every variety of melancholia, with maniacal outbursts, homicidal impulses, and hallucinations to boot. The most striking characteristic and peculiar symptom of climacteric insanity is, the *fear of undefined evil*, which is just the nebulous stage of all kinds of melancholia. Not a single bodily symptom of climacteric insanity has this great stickler for the somatic view of insanity or his sturdy henchman to give us. By mental symptoms alone must it be known. Now we will undertake to produce patients labouring under all these mental symptoms at every age from 15 to 70, so that there is nothing in them, and they cannot be the means of diagnosis. What is it

then which, added to these symptoms, enables a Skaeite to decide that this is climacteric insanity? The period of life; that is the sole test. Then as the period of life alone justifies the diagnosis, and as no distinctive mental symptoms are given, the period of life combined with mental symptoms of any kind constitutes climacteric insanity, and all cases of insanity occurring at that period are climacteric, which is what Dr. Clouston denied.

But again suppose that the symptoms are distinctive, and of themselves enable a diagnosis to be arrived at without regard to the period of life, why should the period of life be tugged in at all? Why should not a name founded upon the essential distinctive symptoms be chosen, and not one founded upon the non-essential undistinctive epoch?

On the horns of this dilemma we leave Dr. Clouston, warning him that should he extricate himself, worse trials are in store for him in connection with this question of the propriety of making long tracts of time a ground of classification of mental diseases.

The conversion of consequences into causes of mental disease is more than once apparent in Skae's classification. Amenorrhœa is not in itself an efficient cause of insanity, else how many young women would be insane. Skae himself says it is sometimes the effect of insanity, and yet he draws up a group of amenorrhœal lunatics—many of whom suffer from dysmenorrhœa and menorrhagia, and who present very promiscuous symptoms, to wit, those of hysterical mania, acute melancholia, dementia, and moral insanity. In this distinct form there is probably in every case an hereditary predisposition, and in some cases an exciting cause which has lighted up the mischief, so what the amenorrhœa has to do with it we do not very well comprehend. No doubt amenorrhœa may be a cause of insanity, but, in the cases adverted to by Skae, it is much oftener a result of the nervous disorder. The best reason that Skae can give for saying that amenorrhœa causes insanity is that the patient herself is often of that opinion.

As to phthisical insanity we may remark that we are familiar with the *euphoria* which often illumines the progress of consumption, and with the delirium that sometimes checkers its later stages, but that we have never encountered that phthisical insanity which is Dr. Clouston's own peculiar property, and which was at one time so prevalent in that asylum over which he now presides. Defective hygiene has been the source of much phthisis in asylums, and is still responsible for some, and of course certain classes of lunatics are by virtue of their debility and habits, more likely to suffer from it than others. In some thoroughly well

ordered asylum phthisis is less prevalent than in the general community from which the asylum population is drawn, which would scarcely be the case were phthisis a cause of insanity to the extent that Dr. Clouston has averred. It may be, as he says, that Dr. Crichton Browne has not fully allowed for the fact that it is the tubercular diathesis, and not the lung degeneration to which he attaches importance; but if he insists so much on this why does he in the last Report of Morningside put all the deaths from phthisis under the thoracic and not under the constitutional diseases? It is an appalling record, that contained in Dr. Clouston's paper on Tuberculosis and Insanity, showing that tubercular deposit was found in 282 out of 463 cases, or in 60·9 per cent.

That it was not a happy thought to make a physiological process give a name to a disease will be admitted by most people. If we have lactational insanity because insanity comes on during nursing, we might have menstrual insanity because it took origin during the monthly period, or the insanity of digestion, because it supervened on a full stomach. But we shall not press this nor other objections—because it is only vindictiveness to slay the slain. Skae's classification has in our judgment had its quietus, though whether it will prudently betake itself to the eternal silence remains to be seen.

By the controversial prolixity which has been imposed upon us by the loose disjointed reasoning that we have had to follow up, if reasoning it can be called, no space has been left to us for the lighter and more congenial task of adequately complimenting Dr. Clouston on the peroration of his paper. The finished beauty of his style, the delicate subtlety of his irony, the winning sweetness of his manner, the stately dignity of his objurgations impart to that peroration a rare charm, and must long make it a model of chastened invective. If Dr. Crichton Browne on reading it did not ring for sackcloth and ashes, then he is other than we have taken him to be. "Far from us, and from our friends be such frigid philosophy" as would stand unmoved in the presence of bathos, or behold without emotion the ruins of common sense. We dash down our pen in the wildest agitation, resuming it however to remind Dr. Clouston that a bludgeon is not a cutting weapon, and to assure him that although he does not specify the kind of milk which he thinks suitable for "medico-psychological babes," and which is doubtless supplied unadulterated at Morningside, we have no difficulty in guessing its real nature. We are confident that it is a sort of milk very suitable for weak stomachs, and that it smacks deliciously of the national emblem of Scotland.

N. M.

ART. III.—ON THE PATHOLOGY AND TREATMENT OF CEREBRAL DISEASE.

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No. III.

IN treating of so many-sided a subject as the pathology of cerebral disease it is impossible to adopt any definite systematic arrangement, or to adhere to one particular plan of discussing the questions which present themselves to notice. The morbid phenomena of the brain involve so many derangements in other organs and tissues of the body, and, *vice versâ*, the derangements of the latter so often induce serious cerebral symptoms, that remarks become necessarily discursive, and nosological classification is practically impossible. As in many other branches of medical inquiry, too, so especially in that relating to cerebral disease, opinions are continually changing, although clinical facts and pathological appearances remain the same, and the interpretation of the two latter is varied almost to infinity according to the light in which the same conditions are viewed by different minds. Although the faculties of observation may be equal in many observers, and the opportunities of investigation be ample in all, yet the refinements of modern science may discover changes in the cerebral mass, which, though some may describe, others are unwilling or unable to admit, while in some cases the zeal for new discovery or for framing new theories or hypotheses will perhaps carry investigators beyond the limits of strict scientific demonstration and of logical deduction, and thus lead to the entire rejection of propositions which may contain many elements of truth. Besides this result, it is by no means infrequent to find acute and diligent workers in the field of cerebral pathology renouncing the opinions which they in former times strenuously advocated, and calling upon their disciples to join them in the repudiation of the doctrines which they themselves had inculcated.

It is difficult enough to lay down any intelligible rules for the determination of what may be called the rough pathology of the cranial contents: to distinguish, for instance, the existence of inflammation of the membranes of the brain as contradistinguished from that of the substance of the organ; to draw the line of demarcation between simple functional disorder of

the brain and the effects of organic disease; to determine the indications which denote an excessive supply of blood to the cerebral mass, and those which point to the opposite condition. But it is infinitely more difficult to map out the brain, as it were, into different limited regions, to assign to those special regions certain invariable functions, and to deduce from the details of symptoms the exact position of a given pathological lesion.

Some general propositions as to the functions of the different parts of the encephalic mass are admitted, but it is extraordinary how few there are which are not even now the subjects of animated controversy. As the thinking principle of man is connected with the outer world by the means of the senses, or, in medical language, by the media of the nerves of special sense, of motion, and of sensibility, so the impairment or disease of any of these nerves will necessarily lead to corresponding disturbances or derangements of the functions which they perform. Disease of the optic nerves, for instance, will impair the function of sight, that of the auditory nerve will interfere with or abolish the sense of hearing, and other equally trite examples might be adduced; but when an attempt is made to trace the nerves of special sense, of motion, or of sensibility beyond the pons Varolii and to follow their fibres as they diverge into or converge from the cerebral or cerebellar fibres or convolutions, the difficulties of investigation begin to thicken, and the region of speculation and hypothesis often replaces that of demonstration and safe deduction. It is not many years since that the doctrines of Gall and Spurzheim, although never generally received by the medical profession in their full extent, were so far recognised to be true as to lead to the belief that certain regions of the brain were more or less connected with special mental attributes; and it was generally admitted that the intellectual functions had their seat in the anterior part of the brain, the moral qualities in the vertical part, and the animal propensities and passions in the posterior portions. But as the mock physician in Molière's "*Médecin malgré lui*" says, "*Nous avons changé tout cela*," and it is now commonly asserted that while the anterior lobes of the brain preside over the functions of intelligence, the middle lobes, comprising the central and upper lobes, are the portions connected with the motor powers, and the posterior part of the brain is especially connected with sensation. This view is, however, by no means universally admitted.

In order to understand correctly the divisions of the brain as defined by the modern school of psychological anatomists, it is necessary to examine the organ in a different manner to that

which was until recently taught in the dissecting room. Every student and practitioner of medicine is of course aware of the obvious division of the cerebrum into two lateral hemispheres; the subdivision of each hemisphere into two unequal parts by the fissure of Sylvius; the union of the two hemispheres by the corpus callosum; the separation of the cerebrum from the cerebellum by the tentorium; and the union of these two brains by means of the pons Varolii and the crura cerebri and cerebelli. But modern research points out other marks of division which would escape the notice of the superficial observer, and which were certainly never taught in former years in the schools of medicine. Thus, for instance, the division between the anterior and middle lobes, formerly described as being only imperfectly established by the fissure of Sylvius, is now said to be completed by a furrow proceeding upwards in an oblique direction from the above-mentioned fissure to the vertex, and named the fissure of Rolando, while the division between the middle and posterior lobes, formerly regarded as merely nominal, is said to be established by another furrow, which has not, however, received a distinct appellation. Moreover, the convolutions of the anterior lobe, which were not formerly regarded as admitting of any distinct classification or definite arrangement, are now grouped in three series, from before backwards, or from behind forwards, from the anterior part of the longitudinal fissure to the fissure of Sylvius, or *vice versâ*, and named respectively the first, second, and third frontal convolutions; and the parietal, temporal, and occipital convolutions are likewise divided into numerically distinguished groups.

The significance and importance of these anatomical divisions have been recently greatly enhanced by some striking observations on the pathology of aphasia, first recorded by M. Broca, and by the still more recent and more striking and even startling researches and experiments, made especially on monkeys, by Dr. Ferrier. It is pretty generally known that M. Broca, from the examination of two brains in the Bicêtre Hospital in Paris, was led to localise the function of speech in the third frontal convolution of the left side, and many subsequent investigations on the clinical history and morbid anatomy of aphasia have more or less confirmed his opinion. It is perhaps even more generally known that Dr. Ferrier, in a most interesting series of inquiries, has demonstrated the fact that stimulation of certain portions of the cortical substance of the brain was followed in his hands by definite movements on the part of the animal experimented upon, those portions being chiefly situated in the anterior part of the organ. Dr. Ferrier, indeed, makes a rough division of the brain into a sensory and motor part, by

drawing a line through the fissure of Sylvius obliquely backwards and upwards to the extreme termination of the parieto-occipital fissure, all the motor region being placed by him above and in front of this line, and all the sensory region being behind and below it.*

Adhuc sub judice lis est; and notwithstanding the high authority of M. Broca, and the scientific skill and trustworthiness of Dr. Ferrier, it would be, perhaps, premature to receive the results obtained by either of these distinguished physiologists into the category of acknowledged truths; and, indeed, as I write, a formidable antagonist has presented himself from the very ranks which might have been expected to corroborate the statements and confirm the deductions of their French and their British *confrère*. No less an authority than Dr. Brown-Séquard, who has, perhaps, done more than any living investigator to localise the functions of the brain, now publicly announces, in his "Lectures" before the Royal College of Physicians of London, that his own previous results are fallacious, and that the brain acts as a whole, and not by the separate agency of its individual parts.

Dr. Brown-Séquard has at present only developed the outlines of his recent views, and there may be some risk of mistaking his meaning; but, in order to avoid error, I copy almost literally from his own acknowledged writings,† and I find him stating that there is no necessary relation between the seat, the extent, the kind of a cerebral lesion, and the symptoms that may appear from its influence. He proceeds, in the same published lecture, to enunciate in a categorical form a series of propositions which are founded on experience, and the truth of many of which must at once be acknowledged. Thus, for instance, he says: (1) That a lesion in one half of the brain may produce symptoms either on the opposite or on the corresponding side; (2) That a very small lesion, whatever be its seat, may produce most violent and extensive symptoms; (3) That a lesion occupying the same extent on the two sides of the middle line of the brain may produce symptoms only, or chiefly, on one side of the body; (4) That symptoms may proceed slowly from a suddenly produced lesion; (5) That symptoms may appear suddenly from a slowly and gradually developing lesion; (6) That the greatest variety of symptoms may proceed from a lesion in the same part of the brain; (7) That the lesions of the most various parts of the brain may give rise to the same symptoms; (8) That permanent lesions may produce symptoms

* "On the Localisation of the Functions of the Brain," by Dr. Ferrier. *British Medical Journal*, December 19, 1874.

† "Lectures," by Dr. Brown-Séquard. *Lancet*, July 15, 1876.

by attacks just as they produce epileptiform seizures: (9) That symptoms may cease suddenly or rapidly, notwithstanding the persistence of the lesion; (10) That symptoms of brain disease may appear from irritation of visceral and other peripheric nerves; and (11) That considerable lesions anywhere in the brain may exist without the appearance of any symptoms.

In some former papers I have adduced cases and post-mortem examinations from my own personal experience, which remarkably confirm some of the above propositions, and I now adduce some others which more or less illustrate the truth of the views here and elsewhere expressed.

The following is a good illustration of the statement that permanent disease affecting the brain may produce symptoms which are in their nature essentially intermittent. It is, in fact, a typical case of epilepsy, caused by thickening of the internal table of the skull and exostoses of its processes; and it will be observed that the patient was watched for several years during life, and that the morbid parts were accurately examined after death.

CASE.—M. Y., æt. 46, formerly a servant, was obliged to leave her place many years ago in consequence of frequent attacks of epilepsy. She was an inmate of an infirmary which I attended, and I saw her repeatedly during many years, as she was under constant medical treatment; the fits were frequent, occurring at irregular intervals, and of a very violent character. In the intermissions between the fits her health was tolerably good, with the exception of occasional headache; her intellectual faculties were quite unimpaired. As she always derived benefit from the local abstraction of blood, her disease was considered to be of a congestive character, and a strict antiphlogistic regimen was adopted and maintained. She was on several occasions cupped between the shoulders, blisters were applied and kept open in the same situation, and occasional purgatives were administered. Her diet was of the lightest character; no solid food or beer was allowed, and she derived her sustenance entirely from milk, eggs, bread, and thin broth or beef tea. This treatment was continued, as I have mentioned, for several years and with some advantage, but no decided improvement in preventing the fits. These at last became more frequent and severe, symptoms of low fever supervened, and she sank.

It should be mentioned that she was in all respects a well-conducted woman, had never been addicted to drink or any other vice, and indeed had been a domestic servant of perfectly good character, until she was attacked with illness.

The post-mortem examination was made forty-three hours

after death, and the body was found to be plump and well-formed, and there was a layer of fat beneath the skin, about three-quarters of an inch in thickness: certainly a remarkable fact, considering the tenuity of her diet, which had been always strictly regulated.

The scalp was natural. The skull externally presented no peculiar appearance, and I had no difficulty in sawing it through. On removing and examining it, however, it was found that there existed a remarkable want of uniformity between the two surfaces of the cranium in some parts, owing to thickening of the osseous structure, particularly of the internal table, which, instead of being, as usual, thin and brittle, was thick and solid. Along the line of the circular incision, made as usual by the saw, the skull was of about the average thickness. The *os frontis* was then sawn through immediately in front of and in a line corresponding with the coronal suture. Along the circular line of incision made by the saw in the first instance in removing the calvarium, the skull had a uniform thickness of one line and a half: but the part corresponding to the right frontal eminence was half an inch thick, and the same part on the left side was five lines in thickness. All the prominent bony processes were much increased in thickness and asperity, as the *crista galli*, the posterior clinoid processes, the bony ridge of the petrous portion of the temporal bone, the ridges on the internal surface of the occipital, etc. The *dura mater* was congested; the vessels of the arachnoid membrane were also congested, and the membrane itself was opaque and thickened; beneath the arachnoid there were two or three fluid drachms of bloody serum. The brain was flattened in front, the depression exactly corresponding to the thickness of the internal table of the skull. The substance of the brain was very firm in its consistence, and the grey part was of an unusually dark colour, but otherwise it presented no peculiar appearance or alteration of character. The other organs of the body were examined in order to make the investigation complete, but no remarkable appearances were anywhere detected.

The above case is a remarkable one, and, after long reflection, I can come to no other conclusion than that the pathology was as I have stated it to be. It is, of course, remarkable that the morbid condition being the same, the attacks were intermittent, but the fact is in accordance with the eighth proposition laid down by Dr. Brown-Séquard and quoted in a previous page. I may also remark, *en passant*, that the treatment was probably the best that could have been pursued, and that any experimental therapeutics, either in the way of specifics or of great depletion, or of undue stimulation, would have been not only useless but very likely might have been very mischievous.

The following very curious but successful case, which I watched myself daily and almost hourly, and of which I made careful notes, is an instance of local disease of the brain, the seat being indicated by the symptoms, and the treatment being justified by the recovery of the patient. I may also state that I knew the condition of the patient long before and long after the attack, so that the features of the case are complete. The malady evidently affected the fifth pair of cerebral nerves on the right side.

CASE.—E. B., æt. 54, a healthy looking woman, has generally enjoyed good health, with the exception of suffering occasionally from indigestion, and once, two years ago, from an attack of pneumonia. About six weeks from the date of the present report, she first experienced slight dimness of sight in the right eye, which, however, on examination did not present any peculiar appearance. At that time she also complained of a pricking, shooting pain in the same eye, together with pain in her forehead, face, and right ear. As no morbid appearance could be detected and no distinct derangement of health was apparent, she was merely recommended to bathe the eye with cold water, which, however, did not afford any relief. Since that time the pain has become gradually worse, and her health has been much impaired.

The sufferings becoming now very much aggravated, a careful examination was made of the symptoms and the appearances, which were as follow: She complains of a shooting, throbbing, burning pain in the right eye, and a sensation, as she expresses it, as if the eyeball were too large for its socket. The same kind of pain extends to the forehead as far as the vertex, backwards to the ear and occiput, and down the neck; to the right side of the nose as far as the external aperture of the right nostril, and to the upper maxillary bone, the pain originating at the situation of the infra-orbital foramen. The upper eyelid is completely drawn over the ball of the right eye, so as completely to obstruct vision. She has no power to lift it up, and the attempt made by me to draw up the lid causes excruciating pain and violent action of the orbicularis palpebrarum which immediately draws down the lid again. The falling of the lid, therefore, is not owing to palsy of the levator palpebræ superioris, but to spasmodic contraction of the orbicularis palpebrarum. When the lid is elevated, although this is done with great difficulty, she is able to see very distinctly. There is, therefore, no disease of the optic nerve, or of any of the internal structures of the eye-ball, the only peculiar appearance presented by the eye being that the pupillary aperture is oval instead of round. This last appearance is no doubt due to some sympathetic affection of the lenticular

ganglion, which supplies the iris with nerves, and which, as is well known, receives a small nervous thread from the nasal branch of the first or ophthalmic division of the fifth pair.

She says that since her illness her hearing on the right side has been impaired—a circumstance due, no doubt, to sympathetic affection of the auricular branches of the third division of the fifth pair, or of the chorda tympani which joins the gustatory nerve. The power of smelling and of taste are, however, quite perfect. The pain in the parts above described is not constant, but subject to violent exacerbations and remissions, and is much increased by pressure on the affected regions. She complains of derangement of her general health, has a sour taste in the mouth, has no thirst, nor any desire for food; she has vomited several times this morning (day of examination); bowels moderately open; urine scanty and high-coloured; tongue covered with a white thick fur; pulse 84, regular. At first I thought the case to be one compounded of neuralgia, dyspepsia, and perhaps hysteria, but its progress soon convinced me that the disease was definitely seated in some part of the brain, and that it affected the origin, and not the extremities of the nerves. Acting on my first impression at the commencement, I ordered a blister to be applied to the right temple, and some alterative and aperient medicine to be administered. *Oct. 15* (two days after this treatment was adopted): Feels rather better, and on the whole the pain is somewhat diminished. She can lift the right upper eyelid to the extent of about a quarter of an inch, but with pain and great effort. The eyelid is very tender to the touch. The general health is much improved; tongue much cleaner, but still slightly furred; vomiting has ceased; bowels open; no sour taste in the mouth; pulse 84, regular.

Oct. 16.—Feels much worse; has had no sleep the whole of last night in consequence of excessive pain in the parts above described. As I now believed that there was some inflammatory or congestive affection within the brain affecting the origin or the course of the fifth pair of nerves, I ordered five grains of pilula hydrargyri to be taken twice a day, and an aperient draught every four hours containing some tartrated antimony. *7 p.m. same day.*—She has taken two doses of the medicine: the first produced no marked effect; the second excited copious vomiting, followed by a violent convulsive fit, attended with foaming at the mouth. On my visiting her soon after this attack, she was lying in a state of torpor, and could not answer the questions put to her. I could now lift up the right eyelid without apparently exciting any pain, but the eyeball was drawn in different directions by the convulsive action of the recti and obliqui muscles. The pupil contracted and dilated, but its

margin was irregular, assuming a somewhat triangular shape; pulse 100, strong and incompressible. I now bled her, and while the blood was being drawn she was seized with violent attacks of rigidity of all the muscles, but they ceased after lasting a few minutes. She appeared now to be only partially sensible, groaned occasionally, and drew her breath heavily and laboriously. 11 p.m. *same day*.—Breathing now hardly perceptible, except at intervals, when she takes two or three deep inspirations. There is constant rigidity of both lower extremities; the upper extremities are also rigidly fixed, although they are now and then relaxed for a short time. The lower jaw is firmly closed, and any attempt to draw it down is opposed by the violent contraction of its muscles. The muscles of the face are not rigid, and both the lips and eyelids can be freely drawn in any direction. The pupil of the right eye varies very much in figure, but is never round. There is not much spasm of the muscles of the back or abdomen, although both appear slightly rigid when pressed upon; pulse 80, soft and compressible.

Oct. 17.—The rigidity of the muscles has continued with intermissions throughout the night, during a part of which she was delirious. Blood drawn yesterday, not buffed nor cupped; pulse 80, soft. Since 7 o'clock this morning she has been sensible; and she now answers questions quite rationally. She has now perfect power over all the voluntary muscles, except that she is still unable to raise the right eyelid. The pain caused by the attempt to draw it up with my finger is more intense than formerly: tongue dry, and covered with fur; no thirst; skin dry; bowels not relieved since six o'clock last night; has passed no urine for twenty-four hours; breathing natural. The following plan was now adopted: a solution of the extract of belladonna (gr. v. to $\bar{5}$ j of water) was dropped into the eye, poured upon the blistered surface on the right temple, and applied to the whole of the right eyelid and adjacent parts by means of a linen rag. She was also ordered to take every four hours a pill containing three grains of blue pill and two of calomel. In three minutes after the application of the solution of belladonna, as above described, the pain in the eyeball ceased, and she expressed it as being benumbed.

Oct. 18.—Feels rather better. The fits of spasmodic rigidity occurred last night nearly every ten minutes, but they ceased at 1 a.m., and after that time she had some tranquil sleep. She is now quite sensible, and has passed about a pint of urine, which has deposited a copious white sediment. The pain in the eyeball is less: she says it is benumbed, but exposure to light gives considerable pain: there is pain in the left lumbar region; bowels confined; pulse 76, rather hard. To

have half an ounce of castor oil immediately, and to continue the pills of calomel and blue pill.

8 P.M. *same day*.—Feels much better, and the pains are much relieved. The right eyelid can be lifted up without much suffering, but she cannot raise it by her own exertions. The bowels have been opened, and the stools are copious; she has passed urine; pulse 80, soft and compressible; she is now quite sensible. She has had three spasmodic fits since the morning, but they lasted a very short time.

Oct. 19.—Improving; has had no spasms since the last visit; has slept from two till six o'clock this morning; the pain in the right eyeball and eyelid is diminished, and these parts are less tender on pressure: the attempt to raise the lid by the finger is also less opposed by the action of the muscle, but she is still unable to raise it herself; pulse 80, soft and full; gums rather tender. The solution of belladonna was again applied to the blistered surface of the right temple. To continue the pills.

Oct. 20.—Considerably improved; she has had no spasms during the night; the pain is relieved, and she does not now suffer any inconvenience in any part of the body; the eyelid is still drawn down, and the tenderness of the eyeball remains, but not so remarkably as before. As her gums were sore she was now directed to discontinue the pills, and to take some aperient and diuretic medicine.

Under this treatment she rapidly improved; the secretions became natural, the tenderness of the eyeball wholly disappeared, and she regained the perfect power of raising the lid. She was discharged cured on the 26th November; and although I had frequent opportunities of seeing her for many months afterwards, she had no return of her complaint, and went on pursuing her ordinary avocations.

I think there can be very little doubt that the above case was one of local disease of the brain, the locality being denoted by the symptoms. Whatever the malady may have been, it appears to have involved the origin of the fifth pair of nerves on the right side. It will be observed that all the parts supplied by the ophthalmic branch of this nerve were acutely painful, and that the pain was also traced to the parts supplied by the superior maxillary nerve; the motor part of the inferior maxillary nerve was also affected, as was proved at one period of the disease by the spasmodic closure of the jaws. The pain and spasm in other parts of the body are, of course, explicable by the reflex action of the spinal cord and medulla oblongata. That it was not mere neuralgia is, I think, proved by the *incessant* pain and tenderness of the parts supplied by the ophthalmic nerve, by the general course of the symptoms, and

by the decided benefit afforded by antiphlogistic measures. It could not have been a case of hysteria, the patient exhibiting no indications whatever of that complaint, and the malady both coming on and going off gradually. Again, it is evident that the symptoms were not caused by any organic disease of the brain, or by any tumour or spiculum of bone, for the cure was complete, and I saw her for months before and after the attack. Nor could they be due to inflammation of the brain, for the state of the pulse, the absence of heat in the head, and other obvious considerations, preclude that supposition. On the whole, I am inclined to believe that it was a case of local congestion, which yielded to the treatment adopted.

The ultimate aim and object of medicine being to relieve the sufferings of the patient, and not merely to discuss the nature of the disease under which he is labouring, I now offer some general observations on the treatment of cases such as those above detailed. I do not at present refer to the treatment of inflammation of the brain, or of those various conditions to which the term apoplexy is usually applied. To the pathology and treatment of the latter class of cases I have already briefly referred in former papers.

There are a great number of cases more or less obscure in their pathology, which point to some morbid condition in the intracranial structures, but to which no general designation can be attached, and which are often remediable by careful and judicious treatment. To take only the two cases recorded in the present paper, one was an instance of hypertrophy of the cranial bones, especially of the internal table of the skull and of the bony processes, and the other was in all probability an example of local congestion, but producing the most serious general as well as local symptoms. Such cases might, of course, be due to, and might often be mistaken for, organic diseases of the brain, which are in their nature incurable; and, on the other hand, they might, with equal probability, be attributed, until the features of each case were thoroughly known, examined and compared, to mere transient functional derangement, which would give way to any treatment or to no treatment at all. Hence the utmost caution is necessary, in the first place, in order to ascertain, if possible, the nature of the affection; and it is better to wait for some time watching the course of the malady before beginning any decided mode of treatment, because the symptoms may possibly give way of themselves, and premature medication might unjustly arrogate to itself the beneficial results which are really due to the operations of nature.

This rule, it will be seen, was observed by me in the second case recorded in this paper, for the patient was carefully watched for six weeks, and decisive treatment was not commenced until the symptoms were so severe and so well marked as to call imperatively for active interference.

The theory of localisation of function in the brain, whether true or false, does not throw much light upon, or lead to much practical benefit in, the treatment of cerebral diseases. In managing such affections the organ must be considered as a whole, and remedial measures must be calculated to act upon it through the general system. Even when the disease is localised, as it very often is, it must be combated, as is frequently done very successfully, by specific or general therapeutical measures acting upon the whole of the cerebral structures. A very careful enquiry must always be made, in any given case, as to the antecedents of the patient and as to the family history. Putting aside, for the present, the consideration of inflammation of the brain or its membranes, and of the various conditions giving rise to apoplectic extravasations and to softenings, there is little doubt that many, if not most, of the other morbid states of the organ are due to, or connected with, some constitutional or hereditary predisposition; and that gout, rheumatism, scrofula, syphilis, and cancer, lie at the root of many of the obscure cerebral maladies with which the physician has to deal. Sometimes one or other of the constitutional affections just referred to has openly manifested itself during the patient's life, and then the diagnosis is very materially assisted; but in other cases the *fons et origo mali* perhaps remains in a latent state during the whole of life, and the real nature of the case is detected only on a *post-mortem* examination. How often does it happen, however, that a new and unexpected light is thrown upon an obscure cerebral disease of long standing by the sudden appearance of some gouty affection of the smaller joints; and how often, too, does the persevering administration of some specific remedy cause the disappearance of perplexing cerebral phenomena. Modern pathology has shown in a very satisfactory manner that most diseases (omitting, however, fevers and other so-called zymotic maladies) are due not to accidental or avoidable causes, but to constitutional predisposition or to the operation of some poison latent in the system. In some cases the *materies morbi* has been acquired by the habits of the patient himself, but in many others it has been inherited by him from his ancestors, even a generation sometimes intervening between the original taint and its repetition in the person of the grandchild.

Without going to the extreme lengths advocated by some

specialists, it is lamentably true that the syphilitic poison, for instance, may develop itself in an active form, and even go so far as the destruction of the bony tissues, in adults who have never themselves suffered from syphilis; and I have myself seen too many such cases to doubt the reality of their existence. It is true that in persons of 20 years of age or thereabouts, of either sex, it is exceedingly difficult to prove a negative in such matters, but by tracing cases, as I have done, at various ages, from early infancy to adult age, and by observing and comparing the very same phenomena in the young child, in the elder child, and in the adult, and giving a certain weight (as is only fair) to moral considerations, it is, I think, unquestionable that syphilitic disease may and often does develop itself in many persons who are quite innocent themselves of having ever run the risk of acquiring the malady. Of course I here allude to what are called the constitutional phenomena of syphilis, and not to the primary manifestations.

These observations are made in connexion with the treatment of several obscure diseases of the brain characterised by anomalous symptoms; and probably in the cases where decided benefit has resulted from the long-continued and liberal administration of the iodide of potassium, or of small doses of the perchloride of mercury, either taken together or separately, the origin of the case has been of a syphilitic nature. I remember one remarkable case which I attended, in which very severe cerebral symptoms, apparently pointing to some pressure upon the brain, gave way to the long-continued use, in large doses, of the iodide of potassium. I recollect another, where the same salt caused the disappearance of some congestion about the root of the third nerve (as indicated by paralysis of the levator palpebræ superioris of one eye) and restored the patient to health. Another very good illustration is, I think, afforded by the result of the treatment in the second case recorded at full length by me in the present paper, and in which there was evident congestion about the root or the course of the fifth pair of nerves.

I do not, however, for a moment allege or suppose that all such cases have a syphilitic origin; all I contend for is that the possibility of such connexion should be borne in mind in the study of doubtful cases, and, especially where other means have failed, that the efficacy of specific treatment should be tested. I may remark that the effects of constitutional syphilis on the brain or the cranium might consist of exostoses of the cranial bones, or of gunmatous formations in the brain itself, and experience teaches that these conditions may be remedied by the use of iodine and mercury.

But there are other maladies, besides syphilis, which may give rise to cerebral disturbance, and perhaps one of the most prominent of these is gout, an affection which, like syphilis, may be acquired or inherited, and which is also alike amenable to medical treatment. As in the case of syphilis, the origin of the gouty affection may be obscure, in the absence of all the usual local manifestations, and perhaps the only light thrown upon the case may be in consequence of the successful use of appropriate remedies. As general hints in the diagnosis of such cases, however, I may observe, in the first place, that gout is far more common in the rich and well-to-do classes than among the poor, and hence cerebral disease of a gouty origin is not often observed among the latter; and, secondly, that a careful examination, chemical and microscopical, of the urine ought always to be made, when the undue acidity of the fluid or the presence of uric acid crystals will afford valuable assistance in diagnosis. Supposing, then, that the history or the circumstances of the case point towards gout, it will be advisable to administer colchicum in moderate and repeated doses, together with alkalis, more especially potash and lithia, as these are the solvents of uric acid; and to prescribe change of air and exercise for the patient, and to enjoin a strict system of diet.

Of the treatment of the cerebral diseases due to the strumous or the cancerous cachexia there is but little to be said. The former category of cases would derive benefit from such well-known remedies as are known to modify in a favourable direction the strumous diathesis, such as cod-liver oil, iron, quinine, generous diet, fresh air, sea-bathing, marine travelling. The category of cancerous affections affords but little hope as to the success of any remedial measures. But it is to be remembered, as I have before observed, that the actual existence of malignant disease in the brain can in most cases, in the living body, be only a matter of conjecture, and it may always be hoped that the malady is of a less formidable character. Hence the treatment should be directed towards the other constitutional ailments to which I have adverted, and there are few observant practitioners who have not found in many cases that the most serious symptoms have given way to therapeutic measures, and the fears of the existence of malignant disease have been happily dissipated. The very circumstance of the doubtful character of many cerebral diseases gives reason to *hope* for a favourable result, and this result is by no means so rare as is sometimes imagined.

ART. IV.—THE LOCALISATION OF THE FUNCTIONS OF THE BRAIN.

BY JAMES GEORGE DAVEY, M.D.,

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It is a source of congratulation to psychologists that recent experimenters have turned their attention to the physiology of the brain. The localisation of its several functions is of the first importance, and to this end the labours of Fritsch, Hitzig, and Ferrier are eminently tending. How far these gentlemen may have been stimulated in their work by the late Dr. Wigan, who wrote, in 1843, on "Duality of the Mind," we may not know. It is certain, however, that he it was who in this present generation sought, in a well marked and especial manner, to counteract the too general tendency to regard the mind—so to put it—as a simple and undecomposable unit. In 1846 Dr. Carpenter came out very strong as a cerebral physiologist; his published opinions go farther than those of Wigan, inasmuch as he claims for the brain a something more than a mere dual function. The two halves or hemispheres of the brain are deemed by Carpenter as plainly insufficient for the complex offices of the cerebrum, in its entirety; and to cover what he considers wanting, he claims for the grey matter forming the floors of the lateral ventricles, the duty of presiding over and ministering to the many active emotions of our common nature; whilst to the superficies of the cortical structure—the grey matter of the convolutions of the whole cerebral mass—he refers especially the intellectual capacities of man and the higher animals. Wigan may be said to stand in relation to Carpenter as the latter named stands in relation to Ferrier. I venture to add, in opposition to the too generally received opinion, that Drs. Wigan and Carpenter are much behind their time, and farther, that even Dr. Ferrier is a long way from being abreast with the latest discoveries in mental science. That cerebral physiologists have come and gone, in comparison with whom the three gentlemen named above are seen in the far off background of free thought, or rather, *progress*, I shall hope to make apparent in this paper. To say nothing of "unconscious cerebration," which Dr. Carpenter has made very much his own, both the dual function of the brain and not less its plural functions, have been long taught and accepted by many as among the very fundamental truths in medical science. Haller and Bichat taught the duality of the mind long years before Wigan, and Gall and Spurzheim demonstrated the great

* This paper was read before the Bath and Bristol branch of the British Medical Association in 1874.

and imperishable truths of phrenology, *i.e.* the localisation of the functions of the cerebrum, before Dr. Ferrier drew breath. Honour, all honour, to whom such "localisation" is due. That soldier who steps first into the breach, who puts himself into the closest contact with danger for his country's good, and in view of the success of a righteous cause, claims the first recognition and the highest rewards from the people. They who follow him will ever bow to his supremacy, and echo his fair and due praise.

I had the pleasure, when at Norwich, in August 1874, to listen to the address given by Dr. Ferrier, on "The Localisation of the Functions of the Brain." Whilst acknowledging the general ability and earnestness of the speech or address named, I could not but be struck with what I am bound to call the incomplete and unsatisfactory manner in which the whole subject was left. Nothing to my mind is more certain than that physiologists are, in no small degree, adrift as to the real significance of the varied phenomena elicited by the experiments of Dr. Ferrier. The application of stimuli to portions of the cerebral surface beget, as a matter of necessity, certain and defined muscular movements; but such are no kind of proof that a centre or source of a mere motive power has been reached or excited to action. The "movements" observed are, to all intents and purposes, due to another cause; and that other, a psychical or mental one. Neither Carpenter nor Ferrier incline as they should to this opinion; and the first named would seem to reject the bare idea of such being the fact. In the recently published volume of "Medical Reports" of the West Riding Lunatic Asylum, it is affirmed by Carpenter, when treating on "aphasia" in connection with the faradisation of the cortical substance in man stupefied by chloroform, that the "causative relation between the physical and psychical states is doubtful, and that a careful examination of the phenomena observed *must leave us very much in the dark.*" But if when Dr. Ferrier applies, which he does, a galvanic current to the cortical surfaces of the organs of the several instincts—for example, to those which prompt us "to take food," "to seize prey," "to destroy," "to fight," or "to construct;" and if then movements "of mastication," "of striking with the claws, or seizing with the mouth," "of biting and worrying," "of scraping or digging" ensue, it is plainly manifest that such movements are nothing more nor less than so many outward signs of an internal and mental condition of being, artificially induced. It is nevertheless true that the innate or subjective faculties of the mind, which ever and anon require the aid or co-operation of the muscular system to carry out their behests, do, under

certain other and objective circumstances or environments, originate the several movements here named: the stimuli to cerebral action, though unlike each other, yielding not unlike, and it may be some similar results. To put the matter fairly, an experimenter applies a stimulus of a certain kind, either directly or indirectly: directly it may be, by the aid of faradisation to parts of the cortex or grey matter of the brain, or indirectly, to the same structure through the instrumentality of one or more of the external senses—the sense of sight, or touch, or sound, and so on. Now such stimulus, when brought to bear on or—what is the same thing—made so as to reach specific regions or organs of the cerebrum in man and animals, regions or organs (as I prefer to designate such) which, bear in mind, are each of them endowed with well-defined and original (elementary) powers or qualities of an undoubted psychical nature, create or cause a certain and immediate shock, a structural change in the relation of the cell corpuscles (the nerve globules) entering into the formation of, or composing, such several regions or organs; and this (shock) it is which begets what Dr. Carpenter very aptly calls the “physical antecedents” of succeeding mental phenomena; and so it is we get at the required explanation of the several facts or outward signs of an internal and mental state, as such are stated above to have been made manifest to Dr. Ferrier.

I have little doubt that Dr. Ferrier, though to this time unlearned—to all appearance—in regard to the very able and significant discoveries of Gall, is even now on the right road, and will one day be found in close harmony with the phrenological doctrine. It is said of him that “in one case he was so impressed by the intelligent character of the successive actions elicited by his experiments, as to speak of it as an *evidently acted dream*.” This remark I am disposed to regard as a first step towards the recognition of the “localisation of the functions of the brain,” as accepted and taught by the followers of the great man (Gall) here named to you.

It occurs to me that by calling your attention to the admirable drawings to be found in the “Anatomy of Expression,” by the late Sir C. Bell, I shall serve well the cause I have in hand this evening. Here we see portrayed the many muscles of the face. The several facial organs—the mouth, nose, eyes, etc.—are seen embedded, as it were, in muscular fibres. The smallest contraction of either one is reflected in the individual, imparting to the visage a corresponding change of expression. The muscular arrangement shown may be said to constitute “a provision for that mode of communication, and that very natural language which may be read in the changes of the

countenance, and to reflect or exhibit, by appropriate signs or movements, each emotion or feeling taking place in the mind." Sir C. Bell has gone so far as to affirm that there are even muscles in the human face to which no other use can be assigned than to serve as aids to such natural language.

See this picture of rage. How strongly marked is the action of the facial muscles! The acute tension or fixity of the corrugator supercilii, as well as of the muscles about the lips and nostrils, gives to the countenance an expression of extreme force and energy, an intense mingling of human thought and emotion, with the savage and brutal rage of the mere animal. Now what does all this mean? Movements such as these indicated must have a source. Muscular contractions of this character can emanate or spring but from intense and painful mental excitement. If in walking the street we meet a man at all like this picture, we know, as it were by instinct, that he is much enraged, and under the influence of a deeply ruffled temper. Could we see as plainly the inward as the outer man, could we see the workings of his brain, the precise organic condition of its cortex or grey medullary matter, we should be assured of, not only its general excess of action, but of the very morbid sensibility of certain of its parts, or "organs," as I prefer to call such.

Assuming the truth and force of the effects of a local stimulus on the portions of brain in the monkey operated on by Dr. Ferrier; accepting, as I do, most readily, the facts elicited—viz. the striking out of the anterior extremities, the active motions of the jaws and lips, and so on—what other inference can be drawn than that this picture of the raging man, including him we are supposed to have met in the street, as well as of the half poisoned and electrified monkey, do but represent or portray identical psychical conditions of being; and that to the same only can the compound and forcibly expressed muscular movements be referred. Bear in mind that *the* part of the brain of the monkey "faradised" was in the near neighbourhood of the ear, *i.e.* above and behind it: in other words, close to the organs of *Combativeness* and *Destructiveness*—to employ the language of the phrenological school.

The picture I show you now is expressive of Terror. The terrible muscular action seen is plainly the outcome of great mental pain. How else could such an expression be evolved or begotten? To this subject we may well, and with much felicity, apply these lines from Spenser:—

He answered naught at all; but adding new
Fear to his first amazement, staring wide,
With stony eyes and heartless hollow hue,

Astonished stood as one that had espied
 Infernal furies with their chains untied,
 And trembling, every joint did inly quake,
 And falt'ring tongue at last these words
 Seemed forth to shake.—*Fuery Queen.*

As a fine contrast, one full of natural beauty, let me call your attention to this one, as copied from Bell's work on expression. In it we look in vain for acute muscular action. We may seek, but to find is not possible, the fast working of the features, the movements incidental to the lower, the worldly passions. The placid calmness in the features, the reverent attention, the elevation of thought, speak eloquently the psychical life animating the individual. The good and holy feelings dominating the mind are but the outcome of stimuli, objective or subjective, acting on certain of the convolutions of the brain in him imagined—that is to say, on those portions or “organs” known to preside over and to determine the measure or the force of the several primitive faculties or mental qualities known as “Benevolence,” “Veneration,” “Conscientiousness,” and so on.

To many in this room it may seem strange that one of Dr. Carpenter's great and untiring industry and well-deserved eminence as a writer on medical science, should within even a few weeks have written thus: “It was until lately the current doctrine of physiology, that no stimulation of the cerebrum would excite either sensation or motion.” The converse of this, he asserts, “was first ascertained by Hitzig in 1870.” To my own senses, these assertions seem strange indeed; for in 1842 I was for some successive weeks engaged with others, to be named presently, on a series of experiments which went to demonstrate in the most decided and unequivocal manner that the stimulation of many different parts of the cerebrum of man did excite both *sensation* and *motion*. I affirm, with no kind of fear for the consequences to science or to myself, that twenty-eight long years before Hitzig ascertained and taught the fact as stated, the same was well known to the late Dr. Elliotson, to the late Dr. Engledue, and to Messrs. Atkinson and Syme of London, including others who may be nameless. I am old enough to remember well the outbursts of envy and passion with which the medical journals long years since treated one of the most laborious and painstaking physicians of that time. It is not now, as it was then, so really dangerous to announce the discovery of things new and strange. The present age *is*, we will hope, less illiberal than I knew and even felt it to be at the time referred to. Drs. Hitzig and Ferrier would not now be reaping the happy harvest of their very commendable

labours if things were not now altered for the better ; but, like Lawrence in 1816 (about) and Elliotson in 1840 and subsequently, they would be *now* the objects of ridicule and abuse. It has been well said that "truth is violated by falsehoods;" but let me ask, is it not "equally outraged by silence?" If this be so, it becomes us to speak out and be silent no longer. Well, then, Mr. President, let me claim your indulgence whilst I, in view of the necessary completeness of my remarks, introduce to your attention the once forbidden subject of Mesmerism, so termed, after one named Mesmer. My purpose is to convince you that with its aid the localisation of the several functions of the brain in man, as discovered by Gall, has been already confirmed by a series of experiments of the most decided character: that is to say, that the stimulation of, for example, the organs of "Combativeness," of "Constructiveness," of "Acquisitiveness," of "Secretiveness," of "Self-esteem," etc., etc., has resulted in movements of the most extraordinary and convincing character, *i.e.* in the outward and visible expression of internal or psychical states, and that these—*viz.* the outward expression and the mental states—have manifestly stood in the closest relation to each other as parts of one whole, phases of a single phenomenon. To put the fact in the fewest words, the natural language of Combativeness, as of Veneration, of Constructiveness and Self-esteem, etc., has been already evoked by the application of local stimuli. The fact Dr. Ferrier may without doubt make much of and utilise to no small extent. Now, under a certain and exceptional condition of the great nerve centres, a change is brought about in the degree of force or susceptibility of parts of the brain; such "condition" realises, in fact, the mesmeric sleep or trance. In this state of being it was discovered by an American physician (whose name I forget), and by Messrs. Gardiner, Mansfield and Atkinson, that it was possible to excite into action any portion of the brain, and to arrest any portion already in action, by touching the part, and in some instances by only pointing to it, and by other means: so that, in numerous instances he (Mr. Atkinson) "could play upon the head," to use the figurative language employed by him, and produce what actions he pleased, just as distinctly as you play upon the keys of the piano. The clearness of the response, it is stated, is dependent on the condition of the person experimented on. In some cases only a few parts of the cerebral mass are found susceptible; in others many more, or even the whole brain. "In rare instances," we are assured "that the mere pressure of inanimate substances will excite the action of the cerebral organs, and that this same action will be made manifest by positive and

well-defined muscular movements, giving rise to expressions indicative of, it may be, anger, or fear, or pride, or veneration; and so on through the several primitive faculties of the human mind.

But to realise the importance and value of the above discovery, it must be borne in mind that to it we are indebted for a proof, at once tangible and conclusive, of the great value of the teachings of Gall and Spurzheim. The correctness of their localisation of the functions of the brain becomes at once so plainly demonstrated that the non-acceptance of phrenology is next to impossible. However, as I have written elsewhere, "the difficulties of unlearning are great," and, as it would appear insurmountable, to even many men of the highest order of mind. This fact will I doubt not in after times be classed among the hallucinations of men of genius.

The same discovery is interesting as marking the close relationship between mental science and the painter's art. Thus one of the very first persons to duly note the practical bearing of the labours and discoveries of Gardiner, Mansfield, and Atkinson, was the late Mr. Uwins, R.A. On January 16, 1843, this gentleman read before the London Phrenological Society, an admirable paper on the "Effects of Mesmerism upon various parts or 'Organs' of the Brain in Man," and in the report of this paper in the *Zoist* the following passage occurs:—

Mr. Uwins, having heard of results obtained from patients in the sleep-walking state, confirmatory of phrenological facts, determined to test the truth of them. Mr. Joseph, the eminent sculptor and a profound phrenologist, was present at the first experiment. To prevent the possibility of deception, Mr. Joseph wrote on paper the organs he wished to have acted upon in succession. We began, said the author, with Ideality and Wonder: exclamations of admiration accompanied by the most expressive and appropriate actions, immediately followed the application of my fingers to those portions of the brain. "How beautiful!" "What a delicious place!" "It is like the happy valley in Rasselas!" "Where are the people going?" I said, "What is it you see?" "Oh, look, look!" She repeated, "There, there: look how finely they are dressed! They are going to dance: I'll have a jig with them;" and she began beating time as if she were about starting off in a dance; when suddenly she said, "Oh no, I'll go in the boat. Oh, what a beautiful lake!" I now put my finger on Cautiousness. She instantly drew back with the most marked expression of fear, and seizing me by the arm, said in an under tone, "Come—come away." "What, are you afraid of us?" I said. "Do you not see," she replied, still in a lower tone, "They are following us? They will do us some mischief." "Don't fear," I said, "I'll fight them off." "No, no, no" (she still held my arm and whispered in my ear): "do not strike them, they will hire somebody to murder you for five shillings. Come

away, come away." Mr. Joseph's course now led to my removing the finger from Cautiousness to Self-esteem, still keeping the thumb as before on Ideality. I had scarcely touched this organ when she drew herself up (she was before crouching under the influence of fear), raised her head very high, and said in an under and reserved tone, though with an expression of cunning satisfaction, "They are actually bowing to me; they think me a person of consequence, and indeed I think myself quite as good as any of them!" She then stood up and made some formal patronising curtsy to the right and left, varying her assumed and stately demeanour till I broke the charm by removing my fingers from the organs, which left her as usual stretching out her hand in darkness and vacancy. Mr. Joseph's next instructions were "Philoprogenitiveness." The patient immediately put on the most winning smiles, and seemed by her actions to be courting children to come to her. "Oh, the dear little creatures!" she exclaimed, "Come, come." At length she seemed to have caught one in her arms, which she hugged with the most ecstatic delight. "Look," she said, "what a dear little angel!" I asked if it was her own, but repented the question as soon as it had escaped my lips. She sank back in her chair, and said with a deep sigh, "No, my home is never to be so blessed." I shall never forget the scene. Mr. Joseph appeared affected almost to tears. As I still kept my fingers on the organ, she soon resumed her pleasurable feelings, and seemed again to be fondling a baby in her arms. Mr. Joseph now wished me to carry my thumbs on both sides of the head to the organs of Destructiveness. Instantly she threw the child away, and began tearing and raving with a fiend-like fury. I said, "Surely you are not going to kill the child?" She replied, "I could kill it—a little ugly devil! I could tear it in pieces," she continued, using the utmost violence with her hands, as if she would destroy everything within her reach. I went now to Benevolence. The change was delightful. She smiled and seemed by her actions to be surrounded by objects agreeable to her. I asked what it was that gave her so much pleasure. "Don't you see," she said: "here are all my kind friends; it is indeed a pleasure to be surrounded by so many kind friends." She continued her smiles of recognition from one to the other, and named some persons from whom I knew she had received kindness. At Mr. Joseph's request I now touched on Combativeness. She instantly began squaring with her fists like a boxer. I said, "Surely you are not going to fight?" She replied, "I do not know what I may do with provocation." "Oh, nonsense," I said. "Not such nonsense, neither," she replied; "I can strike a hard blow; I do not think you would like to take as many blows as I could give you;" she still kept her hostile action of defiance. From Combativeness I went to Conscientiousness. She instantly dropped her hands and assumed an expression of self-accusation; she did not speak or move, but seemed absorbed in reflection. By Mr. Joseph's desire, I moved my fingers to Veneration, when her face assumed a sainted expression of devotion, and bending her body a little forwards, she clasped her hands in the attitude of prayer. Music was the last organ touched. She began beating time as if listening to some instrument or voice. I said, "What is it?" "Do you not hear? Listen: it is my favourite tune,

‘Woodman, spare that tree!’ My husband plays it. Be still: listen.” All this was accompanied by gestures indicative of the pleasure the music gave her.*

Well may it be said, “a new impulse has been given to enquiry; the field of investigation is widening before us.”

No doubt the facts stated will surprise some here; nevertheless, they are *true*. This I venture to state most unequivocally, having seen many of them, and tested not a few. As good evidence of this, let me here refer you to the *Medical Times* of 1842 or 1843. Therein is an article of mine entitled “Phrenology and Insanity,” containing my first impressions—my very earliest experience—in regard to “*Mesmero-phrenology*” so called.

But there is no real need to go back so far for an assurance that parts of the cortical substance, the psychical base, or first starting point, of mind, in all its phases, are affected by local stimuli of the kind above named, or are so highly sensitive as to furnish to the experimenter palpable and various muscular movements involving responsive changes in the “expression,” the outcome of the temporary and dominant mental life, and so on; for in the early part of 1874 Mr. Serjeant Cox (one of our most eminent judges) published the second volume of his “Popular Mental Philosophy.” In this book he treats of the *mechanism of action* of the brain and its parts; and if you look to chapter 13, page 172, *et seq.*, you will find thus described the mental phenomena which attend on *artificial somnambulism*.

The next series of phenomena is equally curious and interesting, and it is very difficult to suggest a satisfactory explanation of them. Strange as they may appear, of their occurrence no doubt will be entertained by any person who has ever experimented with somnambules. I will describe them as briefly as I can.

When the patient has passed from the sleep-like condition into what appears to be an active existence, although he is unconscious and insensible, you can, by touching his head lightly with the finger, excite the brain to action in almost any manner you will. Place your finger upon the spot to which the phrenologists have assigned the faculty of Mirth, and speedily the patient breaks into a fit of laughter. Place another finger upon the supposed site of the faculty of Tune, and he shouts a comic song. Change the touch to Veneration, and instantly he assumes the expression of profoundest piety, kneels, prays, or takes an attitude of devotion. Continuing the finger on Music also, he sings a hymn. Change to Combativeness, and he fights so furiously that it is dangerous to approach him. But while he is most fierce, touch Benevolence, and the lifted arm drops and the passionate face assumes a placid and almost loving expression. Touch Ideality and Language, and he will describe such grand visions as only De Quincey, the opium-

* See *Zoist*, vol. i. pp. 55 and 209.

eater, has depicted. Lay the finger on Language and your hand upon his forehead, he will make a speech to an ideal audience. Touch Hope, and you see the attitude and expression of ecstasy. Touch Adhesiveness, and he will cling to you with every show of devoted affection. In this manner all the mental faculties and emotions may be called into action as certainly and almost as rapidly as the notes can be struck upon a pianoforte. So marked are the expressions of various mental actions, that the most ignorant observer cannot fail to know what faculty it is that is being influenced at the moment.

Nor is the effect limited to the actions of separate faculties. They can be combined to produce combined expressions. Music and Mirth, or Music and Veneration, thus excited at the same time, elicit a comic song or a hymn accordingly. Veneration and Ideality stimulated together, are shown in an exquisite expression of devotion and sometimes of actual worship, as if the somnambule had a vision of angels. The combinations may be indefinitely varied by an intelligent operator, and the consequent motions and expressions of the body, as thus stirred by the brain, will exhibit the combined results of the associated faculties so called into action.

It is not the least remarkable part of these phenomena that the influence exists only so long as the finger touches the asserted site of the faculty. It ceases instantly on the touch being transferred to another organ. If, for instance, you touch Music and Mirth and the patient sings a comic song, in the midst of a bar of the comic air transfer the finger from Mirth to Veneration, still keeping the other finger on Music, and instantly the comic song is stopped, even at a half-note, and the patient commences a hymn, the entire expression of his features changing from the sparkle of fun to the most profound expression of devotion. Again withdraw the finger from Veneration and replace it upon Mirth, and the patient resumes the comic song and the merry countenance.

This curious exhibition of cerebral excitement is not exceptional. It can be produced in the majority of somnambules on the first trial, but in all, with very rare exceptions, after half a dozen experiments. Nor are the expressions of the various faculties thus set in motion at all doubtful. No two spectators of ordinary intelligence would differ as to the motion that was being enacted before them. The language of the faculty is not faintly uttered, but far more vigorously and perfectly than is witnessed in waking life, save under the influence of intense passion or in the mimic passion of the stage. But no actor that ever lived has been enabled by his art to give such perfect expression to emotion, in feature and by attitude, as I have often seen exhibited by boys and girls, called promiscuously from the street, subjected to the somnambulist influence with the entire ignorance of what was designed; who had never seen a play, much less acted one; who had not studied the expression of the mental motions, of whose very names they were ignorant; but who, nevertheless, might have been eagerly accepted by a painter as models for a saint or a sinner, according to the affection, or passion, or intelligence, that had been thus called into play by the slightest touch of the finger.

Much divergence of opinion has prevailed among the students of these phenomena as to the immediate causes of them. If they cannot otherwise be accounted for than by their apparent cause—the touching of the sites assigned by the phrenologists to the various mental faculties in the convolutions of the brain underlying the skull—the inference is that brain and skull have been correctly mapped by the craniologists. It is due to them to acknowledge, also, that the discovery of these phenomena did not precede, but followed, the doctrine of craniology. It is, to say the least of it, a remarkable fact, that in the condition of somnambulism, wheresoever and by whomsoever the skull is touched, that touch elicits, with rare exceptions, the precise expression which ought to be evoked if the material organ of the mental faculty located by phrenology as lying below that spot on the skull had been purposely excited to action.

Assuming, then, the certain and plainly demonstrative truth of the foregoing, can you doubt the great and very high claims of Gall and Spurzheim to our admiration and respect? That they should stand in the very foremost rank of the most successful contributors to physiological knowledge can in no way be well disputed.

I would add, the close and earnest attention now being drawn to the labours and experiments of Dr. Ferrier must ere very long bring the phrenological doctrine to the fore. It seems probable, too, that had Gall never lived, or had his instincts, his logical capacities, been at no time exercised on the *localisation of the functions of the brain*, the further and continued investigations of the Ferrier School would then have been the first to land mental science where Gall left it two long generations since.

One more word. I will hope that what Gall discovered and his coadjutors and followers have taught, and are teaching, will be soon accepted by our profession; and that attached to our medical schools up and down the country will be found teachers of a creditable and sound mental philosophy. Not until this is the case can it be expected to see practised a really sound and discriminate training or treatment of the moral, and not less the intellectual, faculties, whether in the sane or insane; one whereby crime will be lessened, the qualities of our higher nature developed and exercised, and, what is closest to the point—the cause of civilisation in all its fulness and beauty realised.

ART. V.—IDIOTS, IMBECILES, AND HARMLESS LUNATICS.

BY ROBERT BOYD, M.D. EDIN., F.R.C.P. LOND.

President Medico-Psychological Association, 1870; late Physician and Superintendent County Somerset Lunatic Asylum; formerly resident Physician St. Marylebone Infirmary, and Lecturer on Medicine.

IN the previous number of the *Journal* (page 96) it is stated that ten years ago it was suggested that the five south-western counties of England should unite and form a separate establishment for the care, training, and education of the imbeciles and younger idiots, such as that at Earlswood, in Surrey. The practical reasons adduced for the division and separation is that the association with epileptics and others in asylums, especially of young idiots, who are imitative and capable of instruction chiefly by that faculty, must be injurious.

There appears now to be a prospect of something being done to remedy this evil by legislation, through the energy and influence of Sir Chas. Trevelyan, Bart., who is desirous that the proceedings of, I may call it, his Committee should be circulated. The subject is one of great importance and interest to all, but more especially to those connected with the management of public asylums, as it holds out a prospect of their being relieved of the care of harmless lunatics, and so far enabled to make room for acute and curable cases, thereby returning, as it were, to the original intention of asylums, built as hospitals for the treatment of insanity, not as they have become in many instances, workhouse infirmaries for the aged and infirm. To amend this, fresh legislation is required, for the Lunacy Acts, it is admitted, promote the manufacture of pauper lunatics.

“The Council of the Charity Organisation Society, recognising the expediency of placing institutions for idiots and imbeciles on the most comprehensive and satisfactory footing, resolved that a Committee should be formed to consider and report upon the whole subject.”

A most important addition to the scope of the Committee was made at the suggestion of Mr. Dickinson, Chairman of the Visitors of the Somerset County Asylum, who proposed that its enquiry should extend to persons demented after the age of infancy, under the name of “harmless lunatics.”

This suggestion having been accepted, the enquiries of the Committee extend to idiots, imbeciles, and harmless lunatics.

In addition to Sir Charles Trevelyan, Bart., the members of

the Committee were—Earls of Devon and Lichfield, Lord Wrottesley, Hon. C. H. Strutt; Sir Alexander Acland Hood, Sir John Ogilvy, Barts.; Sir Rutherford Acland, K.C.B., Lieut.-Gen. Cavenagh; Revs. Canon Hopkins, R. J. Simpson, and H. I. Cummins; Messrs. Dickinson, Pole Carew, Mocatta, Wilkinson, D. P. Fry, Cropper, Purdy, Buxton, Sperling, Courtenay Boyle; the secretary, Mr. Loch, and assistant-secretary, Howgrave Graham. In addition to these, the Committee is assisted by the medical experience of a number of professional members; amongst these are Dr. Langdon Down, who, formerly at Earlswood and latterly at Normansfield, has had vast experience amongst idiots and imbeciles of the middle and upper classes. The experience of his successor at Earlswood, Dr. Grabham, is also vast; Drs. Bell Fletcher, F. Beach, Ireland, and Mr. Millard have also had special experience in the training and education of these classes.

In addition to these, the Committee has the assistance of Dr. Brewer, whose great administrative capacity and experience cannot fail to be of the greatest service; and lastly, Drs. Hack Tuke, and Wise (who has had long experience in India), Cortis, and Boyd, are members well known for their practical experience and writings on the subject.

The attention of the Committee having in the first instance been directed solely to the legislation in England bearing on the provision for idiots and imbeciles, that bearing on lunatics not in asylums and chronic lunatics have not been noticed. By sec. 66 of the Act of 1853, copies of the quarterly lists of pauper lunatics not in asylums are sent to the clerks of the visitors, and by sec. 69 justices can order any such cases in the asylum. Sec. 8 of the Act of 1862, 25 and 26 Vic. c. 111, provides for the care of chronic lunatics in workhouses; the clause is permissive, but if made compulsory, under the regulations of the Commissioners in Lunacy, as specified in the Lunacy Acts, by D. P. Fry, pp. 535-6, 1864, the difficulty might be met by utilising the existing accommodation in workhouses as provided under these Acts.

The following extract will show that the public begin to dread the expense of further additions to lunatic asylums:—

PAUPER LUNATICS.

In a petition to Parliament the guardians of the Guildford Union draw attention to the desirability of an enquiry into the state of the law affecting the admission of patients into asylums, and to the cause tending to create an increase of the number of the insane paupers, and thereby to impose heavier burdens upon ratepayers. "That pauper lunacy advances at a rate more rapid than the population," remark the

petitioners, "appears from the fact that in 1861 the pauper lunatics were 1 in 583 to the population, and in 1861, 1 in 451. In Surrey the ratio is still more striking, being in 1862, 1 in 500; in 1871, 1 in 427; and in 1875, 1 in 369 of the population, notwithstanding the fact that the population during the last decennial period has increased more in Surrey than in any English county, save Durham. In the opinion of the petitioners, a portion of the increase is rather apparent than real, as many who formerly would have been left at large or classed as persons of weak intellect are now sent to swell the numbers in asylums. There can be little doubt that recent legislation has greatly induced persons to throw upon the rates the charge of maintaining their insane relatives. Among other statutes which had this tendency are the Union Chargeability Amendment Act (28 and 29 Vic. c. 79), and the Act of 1867, establishing the Metropolitan Common Poor Fund. Moreover, persons who are well able to maintain their insane relatives should pay a higher amount for such patients in county asylums than that required from paupers—a sum which covers only their weekly expenditure, exclusive of either rent or interest on capital. The petitioners call attention to the Government capitation grant of 4s. per week per head to the pauper insane in asylums, as tending greatly to send thither persons who might well be cared for elsewhere. The form of admission to asylums by a certificate, signed by any medical practitioner, however unskilled, and countersigned by a magistrate or clergyman, and cause of disease certified by the relieving officer, who knows still less of the matter, is also a circumstance requiring legal amendment." "The amount of madness caused by intemperance," the petitioners consider, "merits searching enquiry. The experience of asylum authorities, the confession of patients and the statement of friends, show that a very large and increasing proportion of patients are the victims of intemperance; eight out of ten of the males discharged as cured being often patients whose admission is due to excessive drinking."

SUMMARY OF THE EXISTING PROVISIONS FOR THE CARE AND EDUCATION OF IMBECILES AND IDIOTS, WITH SUGGESTED FURTHER ARRANGEMENTS.

(For the use of the Committee to be appointed in accordance with the Resolution of the Council of the Charity Organisation Society of the 21st June, 1875.)

According to the Census returns of 1871 there were about 30,000 imbeciles and idiots in England and Wales, or one in every 771 of the population.* Although the most afflicted and helpless of the human

* The following extract from the "General Report upon the Census of 1871" (Vol. iv. p. 63) is deserving of attention in reference to this and other points:—

"According to the return, the total number of persons described as idiots or imbeciles, in England and Wales, is 29,452, the equality of the sexes being remarkable—namely, 14,728 males, and 14,724 females. Compared with the entire population, the ratio is 1 idiot or imbecile in 771 persons, or 13 per 10,000 persons living. Whether the returns are defective, owing to the natural sensitiveness of persons who could desire to conceal the fact of idiocy in their families, we have no means of knowing; but such a feeling is no doubt likely to exist among

race, they are nearly all capable of being in some degree improved, so as to make their lives more tolerable to themselves and less burdensome to others, while a proportion of them may be made wholly or partially self-supporting. The young are especially susceptible of improvement, and the most favourable period is the earliest age at which the child can dispense with a mother's care. On the other hand, confirmed fatuity is likely to be the result of neglect in childhood and youth.

But the provision as yet made for this unhappy class of our population is totally inadequate. More than 10,000 are scattered in union houses, where they cannot receive the training and supervision they specially require, and often seriously interfere with the comfort of the other inmates, meeting in return with ridicule and unkindness. A large number are in lunatic asylums, where they are bewildered by the delusions of the insane, or alarmed at their ravings; and, owing to their imitative propensities, they are made worse than they were before. Others remain at their own homes, where they can only in rare instances obtain the education and treatment suited to their condition, while too often they are grossly neglected.

Private charity has proved unequal to the task. Only about 1,100 idiots are in training in asylums on the voluntary principle, and attempts which have recently been made in the central and western counties to found new institutions have not been attended with much success. Afflictions of this class can only be effectively dealt with as a common burden by public administrative arrangements. As they prevail in a certain fixed ratio to the whole population, the means of mitigation or remedy should be provided, not merely at favoured points like the metropolis and a few large towns, but generally throughout the country. They also affect all classes of society in nearly an equal degree; so that, while the removal of an imbecile member of a struggling working-class family is a necessity, there is no family so wealthy to whom it is not an object to secure for such a member the best scientific treatment, with a public guarantee of proper supervision. The machinery required to provide for this class of cases in every part of England is also so expensive, and so dependent for its efficiency upon proper organisation and inspection, that, although much incidental aid may be obtained from private benevolence, the necessary buildings and establishments cannot be set up and maintained in working order by any power short of that of the entire community, every member of which has a personal interest in the absence of the painful and

those who look upon mental infirmity as humiliating, rather than as one of the many physical evils which afflict humanity.

"Idiots and imbeciles seem to be the last class which has obtained the attention of philanthropists and men of science. Less has been done for them than the lunatics—partly because they are a less dangerous and troublesome class, but partly also from the doubt which existed as to the possibility of effecting a cure, or even any material alleviation of their condition. But attention has now been directed to them, and in consequence of the observation and experience of the last twenty-five years, it has been ascertained that in a large proportion of cases of congenital mental infirmity, a patient may, by care and training, be made able to contribute, at least in part, to his own support. This and other important results have been accomplished by means of the special institutions established for these unfortunate persons."

demoralising spectacle of the neglected idiot, and in the knowledge that he is properly cared for, and improved to the extent of his capacity.

Even now, in the contemplation of the law, every idiot and imbecile who cannot be provided for by his own family is entitled to a suitable provision at the public charge.

The State has acknowledged this obligation in reference to the large number of idiots who have been received into public establishments as paupers or lunatics, although no arrangement has been made for their separate treatment and instruction there.*

By the Poor Law Act of 1844 (7 and 8 Vic. c. 101) the Local Government Board may combine any number of country unions and parishes into school districts for the management of any class or classes of infant poor not above sixteen years of age; and children may be sent from parishes not combined if within twenty miles. The largest powers are given to build schools, provide necessaries, and pay out of a common fund.

By the 19th clause of a Bill recently submitted to Parliament by the President of the Local Government Board, the provision in the 14th section of the Poor Law Amendment Act, 1849, which enables guardians to contract to receive in their workhouse certain paupers chargeable to some other union or parish, is proposed to be extended to the managers of a district or other asylum for the reception of paupers, and to every case in which the Local Government Board shall give their consent.

By the Acts 25 and 26 Vic. c. 43, and 31 and 32 Vic. c. 122, Poor Law guardians may, with the consent of the Local Government Board, send pauper idiots to any institution for the reception and relief of idiots maintained at the charge of the county rate or by private subscription, or to any other union house where special arrangements have been made for the same purpose, paying their full cost therein.

By the Elementary Education Act of 1870 (33 and 34 Vic. c. 75) School Boards are bound to provide for the education of all children, not excluding idiots, with all necessary teachers and appliances; and children of the idiot and other afflicted classes have at least as strong a claim as other children to capitation grants out of the annual vote for education, according to suitable standards of proficiency to be fixed in each case.

* The necessity of a "distinctive system" of treatment for idiots has been repeatedly urged by the Lunacy Commissioners, as, for instance, in the following passage from their Report for 1865:—

"It has long been our opinion, as the result of extended experience and observation, that the association of idiot children with lunatics is very objectionable and injurious to them, and upon our visits to county asylums we have frequently suggested arrangements for their separate treatment and instruction. It is always to us a painful thing to see idiot children, whose mental faculties and physical powers and habits are capable of much development and improvement, wandering, without object or special care, about the wards of a lunatic asylum. The benefits to be derived, even in idiot cases apparently hopeless, from a distinctive system, and from persevering endeavours to develop the dormant powers, physical and intellectual, are now so fully established, that any argument upon the subject would be superfluous. The soundness and importance of such views are generally recognised and appreciated, and benevolent efforts are being made in several quarters to carry them into practical operation."

But by far the most effective legislation which has taken place on this subject is the Act 30 Vic. c. 6, under which the managers of the Metropolitan Asylums District have the power, under the direction of the Local Government Board, to establish asylums for the sick, insane, and infirm at the cost of the Metropolitan Common Poor Fund. These powers have been acted upon, greatly to the public advantage, by the transfer of the imbeciles and idiots from the metropolitan workhouses and lunatics asylums to the Caterham, Leavesden, and Hampstead idiot asylums, and by arrangement subsequently made for separating the children, and educating them in a training-school at Clapton, pending the completion of a more perfect building at Darenth, near Dartford, for 500 children, at an estimated cost of £75,000. In short, this branch of social administration has been satisfactorily provided for, not only by law but also in fact, as regards the great metropolitan population; and the question for consideration appears to be whether this arrangement may not be extended to the rest of England, with such modifications as local circumstances may require, so that the idiots and imbeciles in each county or union of counties may be separately cared for in asylums or training-schools maintained out of the rates—a portion of the expense being recovered from the relatives when they are able to pay, and capitation grants being made from public funds for every pauper idiot so maintained.

There is still another class of cases. Persons of the "lower tradesman" or "upper artisan" class, who are so unfortunate as to have an imbecile child, have real difficulty in obtaining proper care and training for him. They cannot appear as paupers before their Boards of Guardians to claim the benefit of the legal arrangements for destitute imbecile children, while the conditions of admission to the great institution at Earlswood are a tedious and expensive canvass, or a minimum payment of fifty guineas a year, both of which are impossible to them. According to the rules of the Earlswood Asylum, "paupers who are provided for by the law of the land" are ineligible; and the Founder explained that the object was to "supply relief chiefly to the middle and poorer classes, and at the same time become a model and a motive for improvement in our pauper institutions." But it appears from an analysis of the list of the candidates, that, having regard to the position in life and the occupations of the respective families, less than one-fourth answer to the description primarily intended to be relieved, while the remainder are simply pauper cases from all parts of the country, which ought to be fully paid for in charitable institutions by the Guardians, or to be supported by them in their own institutions. It appears, therefore, as an indirect consequence of the undeveloped state of our provincial Poor Law arrangements for imbeciles and idiots, that the provision made by voluntary charity for the relief of the lower-middle and artisan class has been diverted from its original object, and these classes have been left without assistance to bear the burden of providing for the care and education of an idiot child, or to break down under it. Everything, however, will fall into its place when the provincial administration shall be placed upon the same footing of efficiency as the metropolitan. Persons of the lower-middle class with small means, and the well-to-do of the artisan class earning good wages, would be glad to

contribute according to their means towards the education of their idiot children. They cannot pay fifty guineas, but they might pay some thirty, some twenty, and some ten; and the charitable would gladly make good the deficiency.

AGENDA OF THE COMMITTEE ON ARRANGEMENTS FOR THE EDUCATION AND CARE OF IDIOTS AND IMBECILES.

1.—*General Statistics.*

1. Nature of infirmity :
 - Congenital.
 - Arising from subsequent ailments.
2. Number of idiots and imbeciles :
 - Census return of 1871. Whether really more or less ?
 - Proportion in different classes of society.
3. Where placed :
 - Idiot asylums.
 - Lunatic asylums.
 - a. Special wards.
 - b. Ordinary wards.
 - Metropolitan District asylums.
 - Workhouses.
 - Boarded out, or at their own homes.
4. Idiocy and imbecility, how far preventable or capable of diminution :
 - Marriage of blood relations, and of persons with a predisposition to insanity.
 - Moral and physical condition of the wealthier classes.
 - Condition and habits of the poorer classes.
 - Study in asylums of the causes of idiocy and imbecility.
5. How far capable of improvement :
 - What proportion can be rendered self-supporting.
 - How far the habits of the remainder can be improved so as to make their lives happier to themselves and less burdensome to others.
 - Are there any cases not capable of amelioration ; and, if so, of what nature are they, and what can be done for them ?

2.—*General Principles of Treatment.*

1. Whether idiots and imbeciles should be treated distinctively from other classes.
2. Whether they ought to be placed in lunatic asylums.
3. Whether they ought to be mixed up with paupers in union houses :—
 - Absence of all means of special education.
 - Interference with the comfort of the other inmates.
 - Liability to meet with ridicule and unkindness, and to acquire bad habits.
4. Whether this distinctive treatment ought to be applied, especially in the earlier stages of education, individually or collectively.

5. Under what circumstances idiots and imbeciles may with advantage be placed in ordinary schools with other children.

6. Whether their improvement would be promoted by boarding them out in families according to the Belgian practice, and, if so, under what circumstances?

7. Whether the education of idiots and imbeciles should be based on physical considerations.

8. Whether it should commence at the earliest age at which they can dispense with a mother's care, and the subsequent stages should depend upon the capacity developed by them.

9. Whether idiots and imbeciles belonging to working-class families should have a thorough industrial training, so as :

1st. To enable them to support themselves, or, at least, to contribute towards their support;

2nd. To promote their self-respect, by making them feel that they are of some use in the world; and

3rd. To occupy them pleasantly.

10. Whether idiots and imbeciles belonging to the upper and middle classes should be encouraged to cultivate any literary, scientific, or mechanical tastes they may happen to possess; or, if incapable of this, they should at least be provided with the means of harmless amusement.

3.—*Treatment of Adults.*

1. Whether the treatment of adults must depend upon the degree in which the character and faculties have been developed by previous training.

2. In what cases, after having completed their educational course, they may be sent back to their own homes, or be boarded out, or be employed in industrial establishments; and under what safeguards?

3. Whether adult asylums can with advantage be managed as industrial establishments for manufacturing or agricultural industry.

4. The best mode of treating those who are only susceptible of supervision, shelter, and kind care.

4.—*Administrative Arrangements.*

1. Private charity has awakened the national conscience to the claims of this neglected class, worked out the experimental process, and established a model for general adoption;

2. But has it proved equal to providing a remedial machinery coextensive with the evil?

3. Of the 11,000 cases under twenty years of age for whom training is needed, according to the Census of 1871, what proportion have been provided with suitable means of instruction by private charity?

4. How far private charity has suitably provided for the 19,000 adult cases, according to the Census of 1871.

5. Can suitable provision be made for all the idiots and imbeciles in England and Wales, whether juvenile or adult, otherwise than through public administration, by the collective force of the entire community?

6. Arrangements for this object in Scotland, Ireland, and the Colonies, and in the principal foreign States.

7. In England the legislation bearing on the provision for idiots and imbeciles may be briefly stated as follows:—

Under the Lunatic Asylums Act (16 and 17 Vic. c. 97, sec. 2) the justices of every county, and (with certain exceptions) of every borough, are bound to provide an asylum “for the pauper lunatics thereof;” and by section 132 of the same Act, it is expressly enacted that the word “lunatic” shall mean and include “every person of unsound mind, *and every person being an idiot.*” In any case of default, the Home Secretary, on the report of the Commissioners in Lunacy, is empowered, by section 29, to require the justices “to provide a fit and sufficient asylum for so many pauper lunatics as, upon the report of the Commissioners, he may think fit and direct.” These provisions refer to one asylum; but under section 30 the justices are empowered to provide additional asylums where necessary, and the Home Secretary, on the report of the Commissioners in Lunacy, is likewise empowered to require the justices to do so, in the event of default on their part.

The Poor Law Amendment Act of 1834 (4 and 5 Wm. IV. c. 76, sec. 45) prohibits the detention in any workhouse of any *dangerous* lunatic, insane person, or *idiot*, for any longer period than fourteen days; and the Lunacy Act of 1862 (25 and 26 Vic. c. 111, sec. 20) provides that no person shall be detained in any workhouse, being a lunatic or alleged lunatic (and the term “lunatic” here includes an “idiot”), beyond the period of fourteen days, unless the medical officer of the workhouse shall certify that such person is a proper person to be kept in a workhouse, nor unless the accommodation in the workhouse is sufficient for his reception.

By the Poor Law Act of 1844 (7 and 8 Vic. c. 101), the Local Government Board may combine any number of country unions and parishes into school districts for the management of any class or classes of infant poor not above sixteen years of age; and children may be sent from parishes not combined, if within twenty miles. The largest powers are given to build schools, provide necessaries, and pay out of a common fund.

By the 19th clause of a Bill recently submitted to Parliament by the President of the Local Government Board, the provision in the 14th section of “The Poor Law Amendment Act, 1849,” which enables Guardians to contract to receive in their workhouse certain paupers chargeable to some other union or parish, is proposed to be extended to the managers of a district or other asylum for the reception of paupers, and to every case in which the Local Government Board shall give their consent.

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By the Elementary Education Act of 1870 (33 and 34 Vic. c. 75) School Boards are bound to provide for the education of all children, not excluding idiots, with all necessary teachers and appliances; and children of the idiot and other afflicted classes have at least

as strong a claim as other children to capitation grants out of the annual vote for education, according to suitable standards of proficiency to be fixed in each case.

But by far the most effective legislation which has taken place on this subject is the Act 30 Vic. c. 6, under which the managers of the Metropolitan Asylums District have the power, under the direction of the Local Government Board, to establish asylums for the sick, insane, and infirm at the cost of the Metropolitan Common Poor Fund.

8. The practical action taken under the last-mentioned Act will be seen from the following extracts from the Report of the Chairman of the Metropolitan Asylums Board, dated on the 11th of February 1876:—

Summary of the Principal Events of the Four Years which preceded 1875.

In June 1872 the pressure on the Leavesden and Caterham Asylums became excessive, and forced on the managers the consideration of the best method of meeting the increased demand for accommodation for imbeciles, the extent of which was approximately ascertained by returns obtained from workhouses and county asylums. Some relief was afforded by the appropriation of the Hampstead Hospital as a temporary asylum for imbeciles; but neither this nor the additions which were being made to the Leavesden and Caterham asylums proved adequate; and in October 1874 this question again presented itself to the managers. It then appeared that the Leavesden, Caterham, and Hampstead asylums were full; that the parishes were urgently pressing for accommodation, which could not be supplied by the existing asylums, and that patients were therefore being sent, at great expense, to licensed houses and asylums in distant parts of the country. The managers were further informed that there was a considerable accumulation of lunatics who could not be received into the county asylums, as those were already full, and that there were in those asylums a number of metropolitan cases, which might be transferred to the care of the managers, if they had the adequate accommodation. With such facts before them, the managers decided to enlarge the Leavesden and Caterham asylums to the fullest extent which the administrative department in each would allow.

The experience gained in these large institutions had brought the managers in face of a special difficulty, viz. the presence of a large number of children of imbecile mind who were being brought up with the adult and aged imbeciles. To remedy this obvious defect of management, measures were taken in each institution to separate the children, and to make special arrangements for their education and training. The success which attended this system stimulated the managers to further efforts, which led eventually to the removal of all the children, temporarily, to Hampstead.

Accordingly, the managers further resolved to purchase a site for erecting a school for these children sufficiently large to accommodate and train as many as might reasonably be expected to come under their charge.

This site was to be of sufficient extent to admit of the erection of a third asylum for adults if absolutely required.

Pending the erection of the school, the asylum at Clapton was hired by the managers for a term of three years for the temporary reception of the children.

Report for 1875.

The subject of the provision of additional accommodation for imbecile patients has continued to engage the serious attention of the managers at the Board and in committees.

By the extensive additions in progress at the Leavesden and Caterham asylums, the accommodation of those establishments will be enlarged to about 2,000 beds each.

At the commencement of the year a site was purchased at Darenth, Kent, of 109 acres, a portion of which will be adapted to the erection of schools for the imbecile children, the remainder being of sufficient dimensions for the purposes of the third asylum for adults, should its erection be ultimately found necessary. Much careful consideration was given to the preparation of plans for the new school, and the managers ultimately selected those of Messrs. A. and C. Harston. The estimated cost of the erection and fitting up of the school, exclusive of gas works and farm buildings, is £75,000.

The Clapton Asylum, which was taken by the managers for the reception of the imbecile children pending the erection of their new school, was ready for occupation in May last, when 271 children were at once transferred there from the Hampstead Asylum; and the number under treatment at Clapton at the end of the year was nearly 300. For a long time past the managers have been impressed with the desirability of treating the children apart from the adults, and attempting to educate them and develope, as far as possible, any latent capacities they might possess for mental and physical training. During the short time that this plan was tried at Hampstead Asylum it was attended by satisfactory results, which have been considerably increased since its continuation under more favourable circumstances at Clapton. It is hoped that this effort to improve the condition of the children will be attended with still greater success when they possess the advantages of the special school which is to be erected for them at Darenth, and that many of the children may, by perseverance in a proper course of training, be at least improved so far as to be able to return to their homes, whilst a percentage may even be taught some useful trade, so as to lift them out of perpetual dependence.

At the commencement of the year 1875 there were 4,183 imbecile patients under the care of the managers. During the year 870 fresh cases were admitted into the asylums from the several parishes and unions, making a total of 5,053 patients under treatment. There have been 540 deaths, and there were remaining at the end of the year 4,294 patients, viz. at Leavesden, 1,786; Caterham, 1837; Clapton, 300; and Hampstead, 371. For the first time there are now vacancies in these asylums, so that the accommodation provided appears, for the present, to have overtaken the demand.

Detailed returns of the admissions, discharges, and deaths at the several establishments are appended.

9. How far this branch of social legislation has been satisfactorily provided for, not only by law, but also in fact, as regards the great metropolitan population; and whether this arrangement may with advantage be extended to the rest of England, with such modifications as local circumstances may require.

10. Whether Asylum Boards for idiots and imbeciles should be established throughout England and Wales.

11. Whether such boards might also be charged with the education and care of other afflicted classes.

12. How such boards should be constituted.

13. Whether asylum districts should be formed according to population and local connection, and, if so, into how many districts England and Wales might with advantage be divided.

14. Whether Government inspectors should be specially employed under the Local Government Board for the supervision of all institutions for the education and care of idiots and imbeciles, whether public or private.

5.—*Ways and Means.*

1. Whether the necessary buildings should be erected, and the inmates should be primarily maintained, out of a common fund formed by contributions from the poor-rates of the district.

2. Whether any union houses which are no longer wanted, owing to the diminution of pauperism, and the consequent possibility of making the same house serve for more than one union, may be utilised as training-schools and asylums for idiots, blind, and deaf and dumb.

3. Whether families which, although able to pay their way under ordinary circumstances, would be reduced to poverty if required to defray the entire cost, should be charged at lower rates for an idiot or imbecile member.

4. Whether a capitation-grant should be paid from the Parliamentary grant for every idiot and imbecile maintained out of the rates in a training-school or permanent asylum.

6.—*Provision for Idiots and Imbeciles of the Lower-Middle and Upper-Working Classes.*

Whether, when all pauper cases have been provided for by public administrative arrangement, the existing asylums supported by voluntary contributions may be relied upon to provide for cases from the lower-middle and upper-working classes at rates payable by the respective families, supplemented, when necessary, by charitable subscriptions.

7.—*New Legislation.*

Whether *any*, and, if any, *what*, new legislation is required.

IDIOTS AND IMBECILES, AND HARMLESS LUNATICS

Needing public administration, being two-thirds of the total number, this proportion being chargeable to poor rates, and one-fifth of the remaining third being added. Harmless lunatics are calculated at *one-fourth* of the total number of lunatics included in the Census of April 3, 1871.

	Districts	Population	Idiots and Imbeciles under 20 years of age	Adult Idiots and Imbeciles	Harmless Lunatics	Total of Adult Idiots and Harmless Lunatics
1	London . . .	3,254,260	942	806	665	1,471
2	South-Eastern . .	2,167,726	1,866	1,973	1,028	3,001
3	South Midland . .	1,442,654	924	1,138	1,332	2,470
4	Eastern . . .	1,218,728	863	893	425	1,318
5	South-Western . .	1,880,777	1,192	1,385	685	2,070
6	West Midland . .	2,720,669	1,786	2,100	873	2,973
7	North Midland . .	1,406,935	856	1,080	302	1,382
8	North-Western . .	3,389,044	1,737	1,993	780	2,773
9	York . . .	2,395,569	1,171	1,267	518	1,785
10	Northern . . .	1,414,234	553	708	326	1,034
11	Monmouthshire & Wales . . .	1,421,670	722	1,040	319	1,359
		22,712,266	12,612	14,383	7,253	21,636
	Increase of population, 5 per cent.	1,135,613	630	719	362	1,081
		23,847,879	13,242	15,102	7,615	22,717
		Idiots and Imbeciles under 20 years of age	13,242			
		Adult idiots and harmless lunatics . . .	22,717			
		Total .	35,959*			

* This total does not agree with the total of 36,046 given upon the former paper, because the exact number of harmless lunatics has now been calculated; whereas in the former paper the number was merely estimated at "about 10,000." One-fourth of the whole number of lunatics returned in the Census is 9,892. Two-thirds of this number, with one-fifth of the remaining third, make up 7,253, as above returned.

The above numbers include 25 per cent. for idiots and imbeciles not returned in the Census. Twenty per cent. of the whole number is apportioned to cases under 20 years of age, and the remaining five per cent. is apportioned to adult idiots and imbeciles.

Probably 100 idiots and imbeciles belonging to London are at Earlswood, by which the proportion of cases is somewhat diminished for London and increased for Surrey.

List of Counties into which the districts are Divided in the Census.

I.—LONDON.

1. Middlesex (part of).
2. Surrey (part of).
3. Kent (part of).

II.—SOUTH-EASTERN.

2. Surrey (Extra Metropolitan).
3. Kent (Extra Metropolitan).
4. Sussex.
5. Hampshire.
6. Berkshire.

III.—SOUTH MIDLAND.

1. Middlesex (Extra Metropolitan).
7. Hertfordshire.
8. Buckinghamshire.
9. Oxfordshire.
10. Northamptonshire.
11. Huntingdonshire.
12. Bedfordshire.
13. Cambridgeshire.

IV.—EASTERN.

14. Essex.
15. Suffolk.
16. Norfolk.

V.—SOUTH-WESTERN.

17. Wiltshire.
18. Dorsetshire.
19. Devonshire.
20. Cornwall.
21. Somersetshire.

VI.—WEST MIDLAND.

22. Gloucestershire.
23. Herefordshire.
24. Shropshire.
25. Staffordshire.
26. Worcestershire.
27. Warwickshire.

VII.—NORTH MIDLAND.

28. Leicestershire.
29. Rutlandshire.
30. Lincolnshire.
31. Nottinghamshire.
32. Derbyshire.

VIII.—NORTH WESTERN.

33. Cheshire.
34. Lancashire.

IX.—YORK.

35. West Riding.
36. East Riding (with York).
37. North Riding.

X.—NORTHERN.

38. Durham.
39. Northumberland.
40. Cumberland.
41. Westmoreland.

XI.—WELSH.

42. Monmouthshire.
43. South Wales.
44. North Wales.

NUMBER OF IDIOTS AND IMBECILES.

Census, April 3, 1871.

Page 79, Vol. 3.	Under 20 years of age . . .	11,330	
	20 years of age and upwards . . .	18,122	
		<hr/>	29,452
	25 per cent. added . . .		7,363
			<hr/>
	Under 20 years	14,162	
	20 years old and upwards . . .	22,653	
		<hr/>	36,815
<p>This is a proportion of about 16 in every 10,000 of the population, or 1 in every 621 persons. Of the 39,567 <i>lunatics</i> returned in the Census, probably one-fourth were harmless lunatics, being about 10,000 (About 3,000 were in union houses.)</p>			
			<hr/>
	Total of idiots, imbeciles, and harmless lunatics		46,815
			<hr/>

(The population of England and Wales has increased about 5 per cent. since April 1871, and if idiots and lunatics have similarly increased 2,347 must be added, making up a total of 49,162.)

"*More than two-thirds*" of idiots and lunatics were chargeable to the poor rates, according to the Census. If the total of 46,815 be taken, two-thirds will be 31,210. Of the remaining 15,605, probably *one-fifth* will belong to the classes just above paupers, but needing to be benefited by public administration, viz. 3,121 cases, which, when added to 31,210, will make a total to be provided for of 34,331 cases.

If 5 per cent. be added for increase of population, the number will reach 36,047.

About 14 adult asylums will be needed, holding 2,000 cases, providing for	28,000
16 training schools holding 500 cases	8,000
	<hr/>
Total	36,000
	<hr/>

CONDENSED STATEMENT OF NUMBERS OF IDIOTS AND IMBECILES, CALCULATING 20 PER CENT. FOR CASES UNDER 20 YEARS OF AGE, AND 5 PER CENT. FOR CASES OF 20 YEARS AND UPWARDS, NOT RETURNED IN CENSUS LIST.

Needing Public Administration.

Two-thirds of cases under 20 years chargeable to	
Poor Rates	11,480
One-fifth of the remaining third	1,148
	<hr/>
	12,628
Proportionate increase of population	631
	<hr/>
Total of idiots and imbeciles under 20 years of age	13,259
Twenty years old and upwards, two-thirds chargeable to Poor Rates.	13,063
One-fifth of the remaining third	1,306
	<hr/>
	14,369
Proportionate increase of population	718
	<hr/>
	15,087
	<hr/>
Total of idiots	28,346

Harmless Lunatics.

Two-thirds of 10,000 harmless lunatics chargeable to Poor Rates.	6,667
One-fifth of the remaining third	667
	<hr/>
	7,334
Proportionate increase of population	366
	<hr/>
	7,700
	<hr/>
Total	36,046
	<hr/>
26 training schools needed of 500 cases	13,000
11 adult asylums of 2,000 cases	22,000
	<hr/>
Providing for	35,000
	<hr/>

LETTER ON THE ARRANGEMENTS FOR THE CARE AND EDUCATION OF IDIOTS AND IMBECILES IN NORTH GERMANY, BY DR. KIND, MEDICAL SUPERINTENDENT OF THE IDIOTEN-ANSTALT AT LANGENHAGEN, IN HANOVER; TRANSLATED FROM THE GERMAN.

Langenhagen: June 25, 1876.

Honoured Doctor,—I thank you heartily for the papers which you have sent me, both before and now, and would be well pleased to receive more of such interesting communications in the future.

The following data are principally taken from the "Journal of the Royal Prussian Statistical Office," compiled from the Census of the year 1871. The last Census in 1876 is not yet ready to be used in our inquiry. Probably there will soon be a special census for the insane. I cannot give the number of idiots in the whole of North Germany, but only the results of the Census in Saxony, Mecklenburg, and Hamburg are wanting.

There were found in Prussia

51,808 males
49,807 females

In all 101,615 persons with physical and mental deficiencies. This comprised blind persons, deaf mutes, idiots not deaf and dumb, idiotic deaf mutes, and insane persons.

Of these last there were

10,187 males
11,132 females

In all 21,319 insane.

Of the idiotic there were

17,437 males
15,566 females

In all 33,003 idiots not deaf and dumb.

Besides these there were

382 males
354 females

In all 736 deaf and dumb idiots.

This makes a total of 33,739 idiots and imbeciles. Of this last class there were found living in families and private households,

16,133 males
14,395 females

In all 30,528.

In institutions for idiots and similar establishments there were

1,686 males
1,525 females

In all 3,211.

From the agenda kindly sent to me it appears that in England, at the end of 1875, 4,294 out of 30,000 idiots, nearly 1 in 7, are in institutions; while in Prussia there are only 3,211 out of 33,739, that is, 1 in 10. Thus, though we have made some progress during the last four years, we are not yet abreast of England in our provision for the care of idiots.

According to Kollman, in the Grand Duchy of Oldenburg the number of those who are mentally afflicted in early youth is 996; a third of these have reached the age of twenty, but there is no institution for idiots in the whole State. I know of no more complete

account of German institutions for idiots than that of Laehr, which you have got.*

Both the old criminal and civil code of Prussia distinguish between insanity and idiocy. The new criminal code for the German Empire lays down in general terms: § 51. A punishable offence cannot be committed if the delinquent, at the time of the offence, be in a state of unconsciousness or diseased mental activity, through which the free use of his will was impeded. The provincial order for the old provinces of Prussia, of the 29th June 1875, distinguishes (§ 120) between lunatic asylums and institutions for idiots, and gives the provincial diets the power of making regulations about the admissions, treatment, course of instruction, and discharges, subject to the approval of the Minister of the Interior, or of Instruction.

By § 128, the management of the Councils of the Commune,† as far as they have to do with the care of the poor, the insane, the deaf and dumb, the blind, and the idiotic, is given over, with all rights, to the provincial councils.

By the law of 8th July 1875, concerning the carrying out of some paragraphs about the grants of the Councils of the provinces and circles, the assigned sums are ordered to be spent upon the care, security, and help of the insane, deaf and dumb, and blind, and for the support of foundations for the relief of idiots, and other charitable institutions. By no law is the care of idiots made obligatory. Nowhere in the whole of Prussia is there an institution for idiots erected by the provincial administration. The sums granted from the provincial funds for their assistance are relatively very small. Our province, Hanover, which does more than the other provinces for idiots, gives an annual fixed subsidy of £600 out of a budget to institutions of £4,500. The four deaf and dumb institutions of the province, which together contain no more pupils than our single establishment.‡ but are provincial institutions, and not private ones, get a subsidy of £3,750. The only institution supported by the State is in Mecklenburg; but it is small and only for educable children.

In the kingdom of Saxony there is for idiots, Hubertusburg, connected with a hospital for the insane, a State institution, but much too small. The number of idiots in Saxony, from a census taken at the same time as in our province of Hanover, in the year 1871, was found to be 3,436—that is, one idiot to 571 inhabitants, while there were only

* "Die Idioten Anstalten von Deutschland," von Dr. Heinrich Laehr (Berlin, 1876). A copy of this pamphlet was presented to the Committee.

In compiling the short account of German Institutions for Idiots, Dr. Fletcher Beach and I used "Die Heil und Pflege-Anstalten für Psychisch Kranke in Deutschland, der Schweiz, &c.," by the same author (Berlin, 1876), besides some other documents.—[TRANSLATOR.]

† In Prussia, the Council of the Commune, or Gemeinde, elected by the tax-paying inhabitants, fixes the local taxes. Their Chairman is the Bürgermeister, who is nominated by the Government from a list given by the Council of the Gemeinde. The Provincial Councils or Diets are a higher assembly, representing many Gemeinde, which send delegates to them, and also the lauded nobility. Apparently there is another Council, the "Kreis-Verband," which perhaps answers to the "Kreis-Korporation" of Rhenish Prussia.—[TRANSLATOR.]

‡ At the beginning of the year 1875 there were at Langenhagen 130 male and 98 female patients, = 228, and during the whole year there had been 155 males and 109 females, = 264.—[TRANSLATOR.]

2,391 insane—one lunatic to every 820 inhabitants. But what will an institution for 200 idiots do to meet this?

The kingdom of Saxony was the first State in Germany to erect an institution for idiots, and Saxony, in the new Education Bill of 1873, has been the first to make the instruction of the weak-minded obligatory. § 4 provides that neglected children—those wanting in intellect, weak-minded, and fatuous (imbeciles and idiots)—are to be brought up in the public or private institutions provided for that purpose, if sufficient provision be not otherwise made by those whose duty it is to attend to it. No report has yet been published of the working of this law.

No special provision has yet been made for grown-up idiots. Those who are dangerous and epileptic have been for a long time back sent to the hospitals for the insane; but the protests against this are becoming every year more energetic. Single cases may be met with in ordinary hospitals for the sick and in poorhouses. Institutions for idiots have begun in their hospital compartments to take older idiots. Other institutions do not discharge their inmates on account of age. Our institution at Langenhagen does not dismiss any idiot as long as the minimum board is paid, no matter whether the idiot can be employed in the farm, workshops, kitchen, or house, or whether he is helpless and requires nursing.

Let me add that in the year 1874 a petition was sent by the Association of German Physicians for the Insane to the Prussian Minister of Instruction, which asked for revisal of some points in the educational code. The petition will be found in the "*Allgemeine Zeitschrift für Psychiatrie von Laehr*," Band xxxiii. Seite 34 (Jahrgang 1876).*

The special part which was committed to me by the Association at p. 37 A takes in at B the necessary provisions for idiots. The answer of the Minister will be found at p. 40.

In our country, too, men have not yet come to grant to idiots the same rights as to those who are sound, nor have those who enjoy the use of their faculties come to discharge their full duties to those less happily gifted.

I hope that this information may meet what you desire. With the assurance of my highest esteem

Believe me to be yours truly,
(Signed) KIND.

To Dr. W. W. Ireland,
Scottish National Institution for the Education of Imbeciles,
Larbert, Stirlingshire, Scotland.

* This petition points out the consequences of the disregard of hygienic laws in the education of children, and the necessary precautions to take in the case of children affected with diseases of the nervous system. Under the special head mentioned by Dr. Kind, it is recommended that children suffering from temporary attacks of insanity, if sent to asylums for the insane, should be kept apart from grown-up lunatics; that all idiots who are dangerous to the community, who are neglected, or who give hopes of learning a useful trade, should be sent to special training schools, and that the provinces and larger communes should give a subsidy to help this object. In reply, the Minister of Instruction, Dr. Falk, thanks the petitioners for the interest they show in the welfare of the people and State. Similar representations have been already made to him from the Educational Department, but some of the representations go beyond the school into the house, and lie out of the scope of his ministry. — [TRANSLATOR.]

LETTER ON THE ASYLUMS FOR IDIOTS IN THE UNITED STATES OF AMERICA.

N.Y. ASYLUM FOR IDIOTS, SYRACUSE, N.Y.
May 8, 1876.

W. Millard, Esq.

MY DEAR SIR,—Yours of the 14th ult. was duly received about a week since, but I could not well reply till now, for I had a pamphlet in the printer's hands begun, and he was close at my heels demanding copy. This, with the proof-correcting and a large official correspondence, kept me very busy.

I proceed at once to the topics suggested by your letter. There are at present the same number of institutions as at the date of my report in 1875. Since then, however, there has been a moderate increase in the number of pupils in several of them, so that there are probably 1,500 pupils at this time.

The State of Iowa has established a new institution, which will go into operation some time in the present year.

In Illinois, where my brother has the charge of an asylum now occupying leased building that will accommodate 100 pupils, a new structure is now going up to accommodate 275 pupils. At this asylum we have just received from the State 35,000 dollars for building purposes.

To understand the difference in the status of the institutions that you indicate with tolerable accuracy, a word or two may be said of their history. Years ago, when asylums for the insane, for the blind, and for deaf-mutes were established, it was done by private endowment, and they were supported by private donations and legacies. After awhile the different States began to subsidise them, receiving in return the privilege of sending a certain number of patients or pupils, depending upon the sums appropriated. After a time these were followed in the newer States by the establishment of State institutions for these several purposes, the buildings for which, and the money for the annual support of which, came directly from the State treasuries. In fact, in some of the Western States provision for the insane, blind, and deaf-mutes is a part of the organic law. The State constitutions require the legislative bodies to make the necessary appropriations. In these cases the trustees are nominated or appointed by the governors of the States. As a result of this example, in the older States the sums appropriated by the legislative bodies have dried up the private benefactions, so that almost no one thinks of giving to such charities.

Of these older institutions, they are now to all intents and purposes State institutions—except a few insane asylums that are supported by the sums received from private patients. They are still managed by corporate bodies, though in some instances a limited number of State trustees or managers have been added to these bodies. The control over these by the State is, in the main, indirect. They find the money to pay for the support of a certain number of pupils and make the appropriations for building purposes, and can withhold this, if the management is not satisfactory.

Judging by the statistics of the State of New York, I should estimate that 20 per cent. of the number were in City Alms-houses and in County Poor-houses; not one per cent. in jails; and the remainder, except the 1,500 in asylums for idiots, are in the custody of friends. We have so little downright poverty away from the large cities that an idiot member of a family can be tolerably well cared for at home.

The statistics of idiocy are very imperfect. I still think that, leaving out the cases of dementia following insanity, the number will not much exceed one in a thousand. Others estimate it considerably higher.

Our definition of idiocy in America is a generic one, and includes imbeciles. This is the practical one in the admission of pupils to our asylums.

Originally all our institutions were designed as educational establishments; so they excluded epileptics, the greatly deformed, and the insane—as you will see in the appendix to my reports. In Pennsylvania and Ohio they have departed from this principle, and have added a custodial department. I still adhere to the old plan, to be supplemented by separate custodial asylums for the adult and unteachable idiots.

Any case of idiocy or imbecility would be admitted into an American asylum that has been found incapable of being educated elsewhere.

The general exclusion of epileptics deprives our establishments of a class of pupils or cases that make quite good show-pupils in ordinary school exercises. So, too, the exclusion of greatly deformed cases, cripples, &c., cuts off some of those who would make the most progress in strictly school matters.

Being State institutions, or State charities, rather than mere charities, the question is one of political economy as well as charity. Thus, of two cases applying, the management here will select, not the one that appeals most strongly to their sympathies, from family circumstances, or otherwise, but the one whose training and education will render him or her less burdensome to the State, if not absolutely productive. So our scheme of education is subordinated to giving the pupil a capacity for some useful occupation, that he may produce as much as he consumes. Where, from the low mental condition of the pupil, the expectation is much less, even then the aim is to develop such habits of order, cleanliness, and self-care as to diminish the cost and burden of their future support.

Another point may be mentioned. In State institutions we make no difference in treatment between rich and poor, pay cases and paupers. In those controlled by corporations, distinctions are sometimes made and certain special attendance and care is allowed.

In looking over the 'Agenda' sent me, I am pleased to see that it covers almost every point relating to idiocy and the management and training of idiots. Suitable answers to the questions propounded will cover the whole ground. I may venture an opinion on a single point. It has seemed to me that your lunacy laws need some amendment; that is, to the extent of drawing the line between the insane and idiots. Their condition is so different, the requirements so unlike for the two

classes. Practically we make this distinction, and without objection from anyone. Thus, in the case of idiots, at the age we admit them, there is no occasion for a medical certificate, except as furnishing the medical history of the case. Even the judicial certificate, upon which some pupils come, is not in the nature of a commitment, but simply a certificate that the applicant is a proper subject for our institution; that is, an idiot and indigent. I cannot legally retain a pupil if the friends wish to remove him. The friends can come and see the pupil when they choose. There is no confinement. There are no more provisions for confinement than in an ordinary boarding-school. There is no restraining apparatus used, except a long-sleeved apron, sometimes, but rarely, applied to prevent a child from picking a sore hand, or something of the kind.

When insanity is added to the idiocy, or insanity supervenes with increasing age, the case is dismissed to go to an asylum for the insane. We have no arrangements to meet the needs of an insane case. The few that I have seen, when young, are very troublesome; for where insanity is manifested before much intelligence is developed, there is no basis for moral treatment, and the pathological condition, upon which the insanity depends, being organic and chronic, remedies are of little avail.

It seems to me that before many years your local governments will provide for the education of idiots as well as for proper care of the insane. The experience of the Commissioners of Charity for the City of New York is an instructive one. They had separated their idiots from the other paupers as a matter of convenience, into a mere receptacle or place of custody. This separation brought out quite clearly the practicability and the need of training them to some care of themselves. In a few years a little school was added, and this is now a marked and satisfactory feature in their management. So the establishment of institutions in this country for the training and education of idiots, with the industrial results that have been attained, has had a favourable effect upon the management of idiots elsewhere. In County Poor-houses they have been set to work, &c.

I have written hastily, only touching upon a few points that your letter suggests. The 'Agenda' sent me shows that the whole subject is in thoughtful hands, and the topics suggested in that cover the whole ground. I have no doubt that you will reach wise conclusions.

Wishing you all success in your deliberations,

I remain, my dear Sir,

Yours very truly,

H. B. WILBUR.

SPECIAL COMMITTEE ON IDIOTS AND IMBECILES AND HARMLESS LUNATICS.

REFERENCE. "*That the Council, recognising the Expediency of placing Institutions for Idiots and Imbeciles on the most Comprehensive and Satisfactory Footing, resolves that a Committee be formed to consider and report on the whole subject.*"

THIRD MEETING. *Wednesday, May 3rd, 1876.*

Sir Charles Trevelyan drew attention to Professional Treatises by Drs. Bucknill, Grabham, and Bell Fletcher, and to the First Annual Report of the Committee for the Clapton Asylum for Imbecile Children, and undertook to procure copies for the use of the Special Committee.

The first section of the Agenda, as settled at the two previous meetings, headed "General Statistics," was considered.

It was resolved, after discussion, that the inquiry of the Committee should extend, under the name of "Harmless Lunatics," to persons demented after the age of infancy, and the title of the Committee was amended accordingly.

Heads 1 and 2, viz., "Nature of Infirmary," and "Number of Idiots and Imbeciles," were discussed in detail.

As regards the third head, "Where placed," the Committee, after considering the statistics contained in the Reports of the Commissioners in Lunacy and of the Local Government Board, in which "idiots and imbeciles" are included, without distinction, in the same returns with "lunatics," found it impossible to arrive at any certain conclusion.

The fourth head, "Idiocy and Imbecility, how far preventable or capable of diminution," was discussed, and the remarks made by Lord Derby on this subject in 1873, at the annual meeting of the Royal Albert Asylum at Lancaster, were read.

The Committee considered the fifth head, "How far capable of Improvement," and the following resolution was agreed to:—

"That a small proportion may be made self-supporting; that a further larger proportion may be trained to do some useful work; and that, as a general rule, the habits of the remainder can be improved so as to make their lives happier to themselves and less burdensome to others."

FOURTH MEETING. *Wednesday, May 10th.*

Letters were read from the Colonial and Foreign Offices stating that the Earls of Carnarvon and Derby had complied with the request of the Council to procure information as to the arrangements in force for the education and care of idiots and imbeciles in the principal British colonies and European Continental countries, and it was resolved to apply to the Earl of Derby for similar information in regard to the United States of America.

A letter was also read from Mr. Murray Browne, Poor Law Inspector, expressing his opinion that a considerable improvement might be effected in the condition of idiots and imbeciles at small expense.

The Committee then proceeded to consider the several heads of the second section, entitled "General Principles of Treatment," and the following resolutions were come to, after discussion, in reference to the five first heads:—

1st. "That idiots and imbeciles should be treated distinctively from other classes."

2nd. "That they ought not to be associated with lunatics in asylums."

3rd. "That they ought not, unless in exceptional cases, to be associated with paupers in union houses."

4th. "That the distinctive treatment suited to idiots and imbeciles ought to be applied collectively, especially in the earlier stages of education;" and

5th. "That idiots and imbeciles cannot with advantage be placed in ordinary schools with other children."

A motion made by Sir Charles Trevelyan, that "Feeble-minded children ought not to be associated with adult idiots," was discussed in detail, and on its being shown that, under certain circumstances, mutual aid might with advantage be interchanged among those diversely afflicted, and the elder might act as nurses and helpers to the younger, and having regard also to the improvement likely to be effected by early training in the habits of this class, the motion was withdrawn.

FIFTH MEETING. *Wednesday, May 17th.*

A letter was read from Dr. Ireland, Superintendent of the Scottish National Institution for the Education of Imbecile Children, at Larbert, Stirlingshire, transmitting a pamphlet containing a complete list of the Institutions for Idiots in Germany, and the Twenty-fourth Annual Report of the New York Asylum for Idiots, and expressing his great regret that the urgent duties of his office had as yet prevented him from taking part in the discussions of the Committee.

Dr. Boyd presented copies of his recently published *Treatise on the Diseases of the Nervous System*.

The Committee then proceeded to consider the remaining heads of the second section of the Agenda, entitled "General Principles of Treatment," and passed, after discussion, the following resolutions:—

6th. "That the improvement of idiots and imbeciles would not be promoted by boarding them out, but in certain cases, boarding out, under proper supervision, is not unsuitable to harmless lunatics."

7th. "That the education of idiots and imbeciles should be based on physical considerations."

8th. "That the education of idiots and imbeciles should commence at the earliest age at which they can dispense with a mother's care, and the subsequent stages should depend upon the capacity developed by them."

9th. "That idiots and imbeciles should have a thorough industrial training, so as to enable them, as far as practicable, to support themselves, or at least to contribute towards their support, when circumstances render it necessary;" and—

10th. "That idiots and imbeciles of all classes should, as far as

may be prudently done, be also encouraged to cultivate any literary, scientific, artistic, or mechanical faculty they may happen to possess, or be otherwise furnished with employment, so as to promote their self-respect, and to make them feel that they are of some use in the world, or, at any rate, to occupy them pleasantly."

SIXTH MEETING. *Wednesday, May 24th.*

The Committee commenced the consideration of the third section of the Agenda, entitled "Treatment of Adults," and, after discussion, passed the following resolutions:—

1st. "That the treatment of adult idiots and imbeciles must depend upon the degree in which the character and faculties have been developed by previous education and training."

2nd. "That a small proportion may be permanently improved, so as to take care of themselves, either at their own homes or elsewhere, and to earn their own living."

3rd. "That a larger proportion may be improved so as to support themselves under proper safeguards."

4th. "But that there is also a large proportion of cases which, having achieved a certain improvement, are unable to get beyond this, and are, indeed, liable to retrograde, and for these suitable institutions are indispensable."

5th. "Not only can idiots and imbeciles in asylums be employed with advantage to themselves, and the asylums be managed as industrial establishments for manufacturing or agricultural industry, but it is essential to the moral and mental well-being of the class that such a system should be adopted; and, under good management, it may be made advantageous to the institutions in a financial sense by diminishing the cost of maintenance."

SEVENTH MEETING. *Wednesday, May 31st.*

Dr. Langdon Down presented copies of a paper on the "Education and Training of the Feeble in Mind," read by him at the Social Science Congress of 1867, and reprinted for the use of the Committee.

Mr. Millard communicated a condensed statement of the arrangements for the education and care of idiots and imbeciles in the United States, and a letter to him on the same subject from Dr. Wilbur, Superintendent of the New York Asylum.

The Committee then discussed, at considerable length, the fourth head of the third section of the Agenda, viz. "The best mode of treating adults who are only susceptible of supervision, shelter, and kind care," and, instead of recording a separate opinion on this point, it was determined to amend the fourth resolution passed at the preceding meeting, which will now stand as follows:—

"4th. But that there is also a large proportion of cases which, having achieved a certain improvement, are unable to get beyond this, and are, indeed, liable to retrograde, and for these cases, institutions, or departments of institutions, where suitable classification may be carried out, are indispensable."

EIGHTH MEETING. *Wednesday, June 7th.*

It having been resolved at a previous meeting to reserve the consideration of the third section of the Agenda ("Treatment of Adults"), *so far as it bore upon the case of harmless lunatics*, the Committee discussed this part of the subject at considerable length, and Sir Charles Trevelyan moved the following resolution:—

"That, as a general rule, improved, but uncured, adult idiot, harmless lunatic, and epileptic and other hospital cases, should be provided for, in accordance with the preceding resolution (*see the Proceedings of the 31st May*), in separate institutions, or departments of institutions, where suitable classification may be carried out."

To which the Honourable C. H. Strutt, moved the following amendment:—

"That those idiots, imbeciles, and harmless lunatics who, after training and education, are neither capable of further improvement, nor of useful employment, and whose presence may be injurious to those under training, should be maintained in separate institutions, or departments of institutions."

This amendment having been put, and lost by nine votes to eight, the original resolution was carried.

NINTH MEETING. *Wednesday, June 14th.*

A report was made of a visit paid on the previous day by ten members of the Committee to the Earlswood Asylum.

A letter, dated the 27th ult., from Dr. Wilbur, Superintendent of the New York Asylum for Idiots, to Sir Charles Trevelyan, approving of the Agenda, and commenting upon the proceedings at the third and fourth meetings, were submitted to the Committee.

The Committee then considered the five first heads of the fourth section of the Agenda, viz. "Administrative Arrangements," and passed the following resolutions:—

1. "Voluntary charity has directed attention to the claims of this neglected class, and made great progress towards the establishment of a model for general adoption; but it has not proved equal to providing a remedial machinery co-extensive with the evil."

2. "Assuming that the returns of the Census of 1871 are within the mark, only about three per cent. of the idiots and imbeciles in England and Wales have been suitably provided for by voluntary charity."

3. "Adequate provision for all the idiots and imbeciles in England and Wales of the poorer classes, whether juvenile or adult, cannot be made without the intervention of the State."

Under the sixth head, letters were read from Mr. Jonathan Pim and Professor Hancock, stating that the provision made in Ireland for idiots and imbeciles was simply that they might be confined in lunatic asylums as being insane, or in prisons as criminals, or in workhouses as paupers, excepting only the Stewart Asylum, established about eight years ago, in which there are at present 43 inmates; but that a report is being prepared by the Charity Organisation Committee of the Dublin

Statistical and Social Inquiry Society, under the several heads of the Agenda, so that the Committee may have uniform information for all parts of the United Kingdom, as a basis for an uniform law for the helpless classes.

TENTH MEETING. *Wednesday, June 21st.*

A report was made of a visit paid on the previous day by nine members to Dr. Langdon Down's establishment at Normansfield, Hampton Wick.

Answers were read from the Foreign Office, transmitting information relating to idiot institutions in Switzerland and Belgium.

And printed copies of the following papers were distributed :—

1st. A Short Account of the Idiot Asylums in Switzerland and North and South Germany, by Drs. Ireland and Beach.

2nd. On the Arrangements for the Education and Care of Idiots and Imbeciles in Scotland, by Dr. Ireland, Superintendent of the Scottish National Institution for the Education of Imbecile Children ; and

3rd. Letter to Sir Charles Trevelyan from Dr. Seguin, formerly of Paris and now of New York.

The existing arrangements for the education and care of idiots, imbeciles, and harmless lunatics in Scotland were then considered, under the sixth head of the fourth section of the Agenda, and letters were read from Dr. Mitchell, member of the General Board of Commissioners in Lunacy for Scotland ; Mr. Skelton, Secretary to the Board of Supervision for the Relief of the Poor in Scotland ; and Dr. Ireland.

Under the seventh head of the fourth section it was determined to postpone the consideration of new legislation until it shall be seen what arrangements may be recommended to be made.

Under the eighth and ninth heads it was resolved " That the arrangement which has been made for idiots, imbeciles, and harmless lunatics in the Metropolitan Asylum District is applicable, in its main principles, to the rest of England : viz. that idiots, imbeciles, and harmless lunatics should be removed from workhouses and county lunatic asylums, and that young persons of those classes should be suitably educated and trained."

Under the tenth head it was resolved " That the education and care of idiots, imbeciles, and harmless lunatics should be conducted by governing bodies specially appointed and responsible for that purpose ;" and

Under the eleventh head, " That such governing bodies should also be charged with the education and care of blind and deaf and dumb children of the poorer classes."

ELEVENTH MEETING. *Wednesday, June 28th.*

Dr. Hack Tuke and Mr. Mocatta reported visits paid by them to the School of the Metropolitan Asylums Board for Imbecile Children at Clapton.

Dr. Hack Tuke presented a paper, reprinted for the use of the Committee, on the Richmond District Lunatic Asylum, Dublin,

showing how much may be done, even for adults, by regular school teaching.

Copies of the report of the Charity Organisation Committee, of the Dublin Statistical and Social Inquiry Society, alluded to at the close of the proceedings at the ninth meeting, were received and distributed.

The Committee then considered the twelfth head of the fourth section of the Agenda, "Administrative Arrangements," and Dr. Boyd moved the following resolution:—

"That the visitors of the County Lunatic Asylums, which contain a considerable proportion of the idiots, imbeciles, and harmless lunatics in the kingdom, are the very best guardians that could be selected to form a board for the supervision of schools, separate institutions, or parts of institutions, for the improvement and care of these helpless classes."

To which the following amendment was moved by Sir Charles Trevelyan:—

"That such governing bodies (*see* the Proceedings of the previous meetings under the tenth head) should be composed:—

1. Of representatives of the local magistrates;
2. Of representatives of the local guardians; and
3. Of persons appointed by the Crown."

Eight having voted for the amendment and five against it, the amendment was put as a substantive resolution and carried.

TWELFTH MEETING. *Wednesday, July 5th.*

A report was made of a visit paid by a deputation of the Committee on the previous Friday to the Leavesden Asylum.

Answers were read from the Foreign and Colonial Offices, transmitting information relating to arrangements in Holland and the West Indies.

And copies were distributed of a translation (made by Dr. Ireland) of a letter from Dr. Kind, Medical Superintendent of the Idioten-Anstalt at Langenhagen, in Hanover, on the arrangements for the education and care of idiots and imbeciles in North Germany.

The Committee then had before them the thirteenth head of the fourth section of the Agenda, "Administrative Arrangements," and after considering a paper prepared by Mr. Millard on the number of idiots, imbeciles, and harmless lunatics, under and above 20 years of age, who had to be provided for, unanimously passed the following resolution:—

"That the country should be divided into districts, each sufficiently large to fill an asylum containing not more than 2,000 adults, and schools containing, at the utmost, 500 young people."

And under the fourteenth head the Committee resolved, by 10 to 5—

"That, besides the supervision of the Commissioners of Lunacy, the schools and asylums should be inspected and reported upon to the Local Government Board."

It was then determined to consider together the first and fourth heads of the fifth section ("Ways and Means") and, after a prolonged discussion, the subject was adjourned.

THIRTEENTH MEETING. *Wednesday, July 12th.*

Papers relating to the Blind Asylum at Amsterdam, received through the Foreign Office, were submitted to the Committee.

Returns of idiots, imbeciles, and harmless lunatics needing public administration, according to districts, prepared by Mr. Millard, superintendent of the Eastern Counties Asylum, were distributed.

The Committee then resumed the discussion of the first and fifth heads of the fifth section ("Ways and Means"), and resolved—

"That the education and care of idiots, imbeciles, and harmless lunatics must, as at present, be mainly provided for by local administration and local rates; but, as every member of the community is interested in the object, and this national obligation has already been acknowledged in several ways, assistance should be given out of the public revenue; and

"That the best mode in which such assistance can be given is by advances for the necessary buildings on easy terms, liberal capitation grants for young people under training, and grants of less amount for adults."

Under the second head of the same section it was moved:—

"That union houses and gaols which are no longer wanted, owing to the diminution of pauperism and crime, might, when the circumstances are suitable, be adapted as training schools and asylums for idiots, imbeciles, and harmless lunatics."

To which the following amendment was moved, and unanimously carried:—

"That, although many workhouses and gaols are likely soon to be available for other purposes, yet, having regard to adaptability, sanitation, and economy, it is desirable to erect new buildings for the institutions contemplated by the Committee."

Under the third head it was resolved—

"That families which, although able to pay their way under ordinary circumstances, would be reduced to destitution if required to defray the entire cost, should be charged at such rates as their means will allow for an idiot, imbecile, or harmless lunatic member admitted into a training school or asylum; and that the privilege accorded by Act of Parliament to the blind and deaf and dumb—viz. that relief given to children should not be deemed to be parochial relief given to their parents—should be extended to idiots, imbeciles, and harmless lunatics."

FOURTEENTH MEETING. *Wednesday, July 19.*

A statement by Dr. Ireland on the bearing of the Scottish Lunacy Acts upon the condition of Idiots and Imbeciles in Scotland was distributed.

The 6th section of the Agenda, entitled "Provision for Idiots and Imbeciles of the Lower-Middle and Upper-Working Class," was then considered, and the following resolutions were passed:—

1st. "That persons belonging to the lower-middle and upper-

artisan class, who are so unfortunate as to have an imbecile child, are in a less favourable position than any other for obtaining proper education and care for it, because, while they can rarely afford to pay the full cost of maintenance and education, they cannot well appear before their respective Boards of Guardians to claim the benefit of the legal provisions for destitute imbecile children.

2nd. "That institutions mainly supported on the voluntary principle are best adapted to the needs of the class specified in the foregoing resolution, provided all suitable cases are admitted at the proper age, at rates suited to the circumstances of the respective families."

3rd. "That the Government may assist in the formation and maintenance of such institutions by removing unnecessary legal restrictions."

FIFTEENTH MEETING. *Wednesday, July 26.*

Letters were read from the Foreign Office, transmitting documents relating to the education and care of idiots and imbeciles in Germany, Sweden and Norway; and from the Colonial Office, relating to the same subject in Jamaica.

The following resolution having been moved by Mr. Wilkinson, in reference to the resolution which was passed, under the 3rd head of the 5th section, to the effect that families which cannot defray the entire cost in institutions mainly supported out of the rates, should be required to pay to such extent as their means may allow:—

"That, considering the great want which now exists of efficient training schools for the young, and of custodial institutions for adults, it would be desirable that persons able to pay the entire expense of their maintenance and training should be received into these institutions, on such payment by parents or friends as the managers may approve;"

upon which the "previous question" was moved, and carried by seven votes to two.

The 7th section of the Agenda, entitled "New Legislation," was then considered, and it was resolved—

"That the legislative provisions required for idiots, imbeciles, and harmless lunatics should be consolidated in a single act distinct from those applicable to dangerous lunatics, but the details of such legislation must depend upon the measures which may be actually adopted."

It was then resolved that a sub-committee should be appointed to prepare a draft of the report, consisting of the following member:—

The Hon. C. H. STRUTT.

Sir CHARLES TREVELYAN, Bart., K.C.B.

Dr. BREWER.

Dr. LANGDON DOWN.

Dr. GRABHAM.

Mr. W. M. WILKINSON.

Mr. MILLARD.

In some observations on the administration of medical relief to the poor, in a letter of mine in the *Lancet* in March 1854, it is stated

that, besides paupers, there is another class of persons in humble circumstances, and that is the industrious mechanics and labourers dependent on their daily earnings, who too frequently, for want of timely assistance, not having the means to employ a doctor, and being too proud to seek medical aid as paupers, fall into fever or long-continued illness, and from consequent inability to maintain their families, and the expenses attending their affliction, become at length dependent on the parish. Their children are placed in the workhouse, their home being entirely broken up; and all this train of calamity might have been arrested had timely medical aid been provided for them without degradation. Cases of this nature are of such common occurrence that it is the cry of parochial officials, "Medical relief is the first stepping-stone to other relief."

Apart from the question of humanity, in a mere economic point of view, it is to be hoped that some beneficial measure, not only for idiots and imbeciles, but also for granting gratuitous medical assistance in time of sickness, to this important class of persons, will be shortly enacted.

The principle of affording gratuitous assistance to persons not paupers is recognised in the Vaccination Act; why should not the same principle be extended in cases of sickness, so as to afford medical relief in time to prevent the spread of pauperism as well as of fevers or such other serious diseases?

From my statistical report of the diseases of the out-door patients of the Marylebone Infirmary, in 1841, it appears that in three years there were 127 cases of small-pox and 32 deaths, and of fever 918 cases and 47 deaths.

My own experience induces me to give a decided preference to medical attendance at the patients' homes, or house-to-house visitation, to that of receiving them into hospitals, as in the former mode the mortality is much less than in the latter; in proof of which I can refer to my tables published in the *Lancet*, 18th June, 1842, including upwards of 13,000 cases, about 7,000 of which were attended at their own homes, being for the most part confined to bed, unable to attend as out-patients at the infirmary. The mortality amongst them was upwards of 7 per cent., while among the 6,000 attended in the infirmary, during the same years, the mortality was upwards of 15 per cent.

In many instances the removal of a patient from his home—separating him from his family—placing him in an hospital among strangers, some near him dying perhaps, must have a very depressing effect, and add materially to the mortality of such institutions. If the homes of the poorer classes were improved, and the means of cleanliness and general sanitary measures, to which the charitable and benevolent mind of the public is now happily directed, were further extended, hospitals, unless for accidents, infectious diseases, fevers, and for the insane, would be much less required than they now are.

With respect to chronic and harmless lunatics, it would be very desirable if facilities were afforded for the interchange of such cases between the asylum and workhouse. Relapses occur in about 16 per cent. of cases in asylums after recovery.

In the wards of the Marylebone Infirmary there were usually under

treatment about twenty recent cases of insanity, for which admission could not be obtained at Hanwell Asylum, which was crowded with chronic cases. An application was made by the Guardians to the Visitors to allow an exchange of the old incurable for recent curable cases, but the Visitors refused.

In my report on the lunatics chargeable to the parish in 1844 I referred to the frequent occurrence of relapses, the result of defective means of separating the convalescent from the more acute and noisy cases. Also that this want of separation was not confined to the infirmary; for in the workhouse the want of proper separation of the epileptics, idiots, and imbeciles, from other paupers, was equally manifest. An instance was given of an imbecile, G. F., who assigned as a cause for attempting self-destruction—which he nearly effected—the constant jeering of others in the workhouse-yard.

The Metropolitan Commissioners in Lunacy, in their Report, state—“In reference to the populous parish of St. Marylebone, the magistrates refused to exchange old incurable for recent and curable cases. But the professed, and indeed the main object of a county asylum is, or ought to be, the care of insanity. The patient who has had the benefit of a trial in the asylum where he has become incurable should, we submit, give way to the afflicted pauper who is in the workhouse or at home, and is probably curable, and equally entitled to be received at the asylum, where by prompt and proper treatment he may be restored to health and to his family, instead of being permitted to become an incurable lunatic, a source of expense to others and of suffering to himself. A county asylum is erected for the benefit of the whole county, and is to be considered not merely a place of seclusion or safe custody, but a public hospital for cure. The result of the system adopted by the justices in Middlesex is, that the county asylum is nearly filled with incurable lunatics, and almost all recent cases are practically excluded from it.” The result was that a licence was obtained for ninety-five patients in wards, and exercising-yards set apart, with attendants and a dietary, approved by the Commissioners in Lunacy, where the acute cases were treated, and the admissions averaged about two a week.

Since that time enormous sums have been expended in Middlesex for lunatics of all classes. Colney Hatch, Leavesden, Caterham, Hampstead, have been erected for thousands of patients; a school for idiots is to be built, and another asylum. Those mentioned, with the exception of Colney Hatch, are considered as workhouses under the Local Government Board, formerly the Poor Law Board—always regarded incompetent for the care of the sick. According to my experience, special legislation for pauper lunatics is a grievous error. Is not a pauper afflicted with fever, pneumonia, or with a broken leg, as much an object requiring care as a lunatic? Do not all come under the category of “medical relief”?

The overcrowding of asylums by chronic cases, and an adequate provision for such, has occupied the attention of the Commissioners in Lunacy frequently for many years. In their last annual report for 1875 it is stated “that they have visited 361 workhouses, containing a total of 12,566 patients. In many of them the arrangements are of a

liberal character: the accommodation being good, the diet sufficient, the employment and recreation of the inmates fairly attended to, and responsible paid attendants being placed in charge; in fact, good and sufficient provision is made for the care of many harmless chronic patients (and these alone can be legally detained in workhouses) who would otherwise require to be placed in asylums. The good, however, effected in one direction is too often more than counterbalanced by evil in another, and, on the whole, it is found that lunatic wards in workhouses lead to direct violation of the Lunacy Laws, which aim at causing insane persons to be placed, at the earliest possible period, under care and treatment, in properly-constituted asylums." Numerous accidents and suicides in workhouses are related in this full and suggestive report.

Fresh legislation is required, including a better organisation and stricter supervision of workhouses generally. The Metropolitan Poor Act of 1867 provides only for the Metropolitan district, which includes about one-seventh of the population of the United Kingdom. By the Lunacy Acts the visitors of County Lunatic Asylums have submitted to them, through their clerks, copies of the quarterly lists of pauper lunatics and idiots *not in asylums*, and have power to remove suitable cases to the asylum, and thence, if need be, to an hospital for chronic cases.

ART. VI.—THE PSYCHOLOGY OF GENERAL PARALYSIS OF THE INSANE.

By FREDERICK TREVES, M.R.C.S.

IN a disease of so great interest and of so marked a character as General Paralysis of the Insane, it would be well to anticipate a more accurate knowledge of its pathology by some attempts to investigate its psychological nature and significance, and by ascertaining to what mental changes its peculiar character is to be ascribed. Such an attempt is useful only when reviewed in connection with the physical evidences of the disease, and is justified as perchance forming bases upon which a more sound and accurate pathology might be raised.

Much has of late been successfully written to show that an extensive series of actions hitherto assigned to the direct and present influence of mind are in reality automatic, and performed without even the intervention of consciousness. Such actions, consciously designed at first, are again and again repeated; consciousness is at each repetition less and less involved, until at length their performance becomes purely automatic, or is at least attended by no conscious activity of mind. These actions become, as Dr. Maudsley well expressed it, organically registered; each repetition would appear to make that organisation more complete, and the degree to which an action, or series of actions, is performed without the direct agency of mind would seem to depend upon the soundness of its physical basis in the nervous centres. For example, to sign one's name is, in the educated, perhaps as automatic, and at the same time as elaborate, an action as could be selected. In the nerve-axis one might conceive this action, or rather series of concerted actions, as organically registered and represented by a centre which, if suitably stimulated, would cause the said actions to be displayed, yet without the interference of consciousness, just as in primary reflex acts. Still there was a time when this act would have no physical basis in the nerve centres; when each letter and each part of a letter would be formed with direct consciousness and imply evident guidance of mind: but at each repetition of the act the mind takes a less and less apparent part; until at length the elaborate action of signing a name comes to be classed under the secondary reflex acts, or, as they may be also termed, acquired or educated reflex acts.

These remarks, which so far refer to physical actions only,

may be applied with perhaps an equal appropriateness to the actions of the higher centres of the brain, and to a greater extent than might at first sight appear tenable. Is it possible for a collection of ideas to be reproduced automatically, and for individual thoughts and processes of reasoning to produce an effect, without a consciousness on the part of the individual? How far one might speak of unconscious thought or of automatic reason is certainly very questionable; but a want of terms may, perhaps, be some apology for a vagueness of wording.

To take an example of these remarks. An experienced physician, in examining a case, arrives at once at a diagnosis: place the same case before a well-read student of equal mental calibre, and he puzzles long before coming to an opinion. What is the difference between the mental processes in the two observers? It will be said to be merely a question of experience; but what does this imply? The younger observer arranges certain ideas and thoughts; he enters into various steps of reasoning more or less complicated, and all by an active and conscious effort of mind, until at length he attains a conclusion or definite opinion. Each succeeding case of a similar nature presented to his notice calls up the same ideas, thoughts, and reasoning; but each time he is aware of less active mental interference: constant repetition has made the various processes on which his diagnosis depended automatic; and at last, as the experienced physician, he comes to an opinion at once. If now he were to closely analyse the reason of his immediate diagnosis he would find that quite unconsciously he must have gone through all the steps he first undertook, and which, by constant repetition, have become automatic, or at least exercise their influence unconsciously.

Or again: a question—say of morals—is presented to a man for judgment: he at once gives an opinion for or against. It cannot be said that that decision is arrived at by instinct, and it would no doubt be ascribed to “preconceived ideas;” but such a term implies merely this—that by repeated contact with similar questions the processes necessary for a conclusion have become to be unconsciously performed or passed over, the result alone remaining; the active interference of the mind becoming less and less apparent at each repetition, just as repeated physical actions are at length to be classed as automatic.

It will be seen, then, that mental processes such as have just been alluded to are under the direction of a power that primarily calls them into being, and is more or less evident on each occasion of their repetition. To assign a name to this power would be difficult: it may be looked upon as mind in an active

or conscious form, in distinction to such mental movements as are automatic, or performed without the consciousness of the individual; or as a modified volition; but as a special power it cannot be regarded. The conditions may be briefly stated as these: A certain thought, or series of thoughts, or a certain step of reasoning, due perhaps to some recognised stimulus, is at first performed consciously by the individual, and by conscious effort; at each repetition this conscious power or effort becoming less and less marked, and, as it would appear, less and less necessary for the proper performance of the mental movement. During the earlier repetitions the act is quite dependent on this originating or directing energy, but ultimately it would become in a way reflex, responding to a given stimulus without consciousness, and independent—so far as the individual is aware—of any effort. Constant repetition causes the given mental action, as in the case of the physical action, to be organically registered in the brain centres. It would appear that to an injury of this power, whatever it may be named, we must look for an explanation of the mental symptoms of general Paresis.

Now, it is evident that disorder of this mind-power will affect in the main two classes of mental actions—those, on the one hand, that are of quite recent origin, or that have not been repeated sufficiently often to render them organised or independent of the originating energy; and those, on the other hand, that from their indefiniteness, or from their intricate and elaborate nature, are still unable to be performed—although perchance often repeated—without conscious interference; just as those physical actions that are the most complex are the least easily learnt, or made reflex, and are the first to suffer in any case where the mental power is impaired. How these remarks bear on the psychological symptoms of General Paralysis of the Insane may now be considered.

It is important to recognise the profound importance in the human mind of Self: nothing is of more general or more intense interest to man than Humanity, and Self is the segment of it with which he most certainly is the best acquainted. All human actions and qualities that are external are brought to Self as to a standard—not necessarily of excellence, but of comparison; and it is by such comparison that one's defects or virtues become pronounced, and one's relation to the rest of humanity defined. From Self as it is man deduces an ideal Self as he would wish it to be. This is natural to all men, and it is an outcome of that eternal impression of one's weakness, real or imagined, that forms the basis for ambition and the desire for growth and improvement: so the cowardly man is, in his ideal, a hero, the weakling a tower of strength, and the man in need

a moneyed idler. Around each man's Self there is a halo of unreality in which he lives and moves, as he would wish and aspire to live and move. All men more or less are dreamers, from the youth who rises from his novel a hero of romance, even to the hard practical man who in his still hours will have projects and speculations as unreal as his life is real; and there is not a man who has not drawn up and surrounded himself with an ideal Self, as a kind of standard of perfection to which he would be elevated. In the healthy-minded this finds no expression, and one is aware of the existence of such an ideal only, perhaps, from remarks dropped here and there: some wish, it may be, if only his property were such, or his health perfect, or his condition this or that, from which one learns that he has placed himself under each of the imagined conditions, and has acted his new part, lived his new life, and moved in his new world—a world as unreal as the lotus-eater's, but with a foundation of fact and a structure raised on the ideal of the perfection of Self.

But this halo of unreality with which the Ego of every man is surrounded, is not of an entirely indefinite character. A man does not picture himself as abstractly better or abstractly wealthier, nor is his imagined condition purely an abstract one: it has a character more or less precise: he is wealthier by the addition of so many fancied pounds, ennobled by this virtue or by that, and physically improved by such qualities as he most admires or considers himself most deficient in.

Now we have seen that if the power to which all mental processes are due be impaired, those actions, amongst others, will be affected which are the most detailed and elaborate, the most varied, the least rigidly defined, and the least organically registered. Of all processes of mind those involved in the consideration of Self are certainly at once the most general and extensive, the most changeable and complicated, the most vague and the most ill-defined; and of all things, Self occupies in the mind the widest attention, the most frequent attention, and the most capricious attention. Assuming, as above suggested, that in General Paralysis of the Insane this mind-power, whatever it may be called, is the seat of the main lesion, the psychical processes concerned in the consideration of Self will be the first involved, and will present the most prominent symptoms.

In General Paralysis the constraining directing energy is impaired, and Self runs riot: not the actual Self, the mental processes connected with which are more automatic and are therefore still properly performed; but the ideal Ego, the man, not as he is, but as he has pictured himself, and as he would have himself to be. The complicated, ill-defined and flimsily

registered mind movements go first, the more precise and automatic still remaining intact. Thus the patient feels himself "perfect," or in his ideal state; he is "first-class," he ails nothing, he wants nothing; he is muscular beyond compare, swift of foot, and keen of vision; everything is rose-colour, and his world one of self-gratification and enjoyment. The vague, intricate thoughts and ideas with which he has built up an ideal of himself have now free play. He is living in his fancied world; his day-dreams are being realised and perfection reached; in money matters he has his thousands—the thousands that have, perchance, formed often enough a part of his thought; his estates are limitless, his interest unbounded, nothing is lacking, and he is, indeed, all he has ever wished himself to be.

The patient is a huge expression of Self, exaggerated and ideal, and presents no ideas nor delusions that are not selfish in character. He does not imagine, as others who are insane might do, that the world is upside down, or on fire, or that some extraordinary event is about to happen: had he such delusions they would assuredly have still some relation to Self, and the world would have been upset by his own terrific power, or burned for his own gratification, or the event would have some bearing on his own perfection and magnificence.

Then, again, the markedly obscene ideas which the patient generally presents may be covered by the same explanation. Every man who experiences animal passions, no matter how simple and exemplary his conduct may appear to the rest of the world, cannot fail under the impulse of such passions to imagine some method of gratification; thoughts of this character, which are the more defined the baser the intellect, are often repeated, and may assume a prominent part in the ideal Ego a man deduces from his actual Self. If the mind powers be impaired, these loosely formed and imperfectly organised ideas have free play when called into action by a proper stimulus, and, as the result, we have those expressions of obscenity which are often a marked feature of the disease. Religious ideas are of a somewhat less definite character, and do not afford so encouraging a scope to the selfish ideal, unless the individual be of marked religious tendencies. Expressions of religion are, however, frequent in the earlier stages of the disease, but very soon cease to be heard of, and are, as a rule, of a happy, smooth, and gratifying nature: the patient will, perhaps, spend many hours in prayer or in reading some religious book, or in what is apparently deep thought; or his ideas may assume a less meditative character, and he will imagine himself about to be made a bishop, or affirm that he is going to preach in a cathedral.

In the next place, it is to be remarked in regard to the patient's delusions that they are progressive—progressive in number, absurdity, and exaggeration. The first evidence of grandiose ideas is often slight, and the earlier notions will generally be found to have some actual and ascertainable basis; for example, a patient will state that he owes the sum of £400, when it will be found perhaps that his mind has been much exercised of late about a bill of £4; or again he will praise his muscles and extol his powers of running and his qualities as an athlete, while he presents a body markedly feeble and ill-conditioned.

Now, could the day-dreams and romancings of many sane men be laid bare and exposed exactly as they pass through the mind, it is to be doubted whether they would appear one whit less ridiculous than the earlier mental symptoms of this disease, or even than the symptoms when the insanity is tolerably advanced. The drunkard, too, when in his cups, presents in a temporary form a mental condition akin to that of the general paralytic; the mental power becoming impaired by the poison, the least automatic mind actions have free play: the nature of those actions has been shown, and we see them displayed in the confident bombast, the exalted ideas, the general self-satisfaction and contentment.

The tippler, rising from his glass, shares with the general paralytic his happy frame of mind, his ability to do anything and attempt anything, his increased possessions and his many personal excellencies; the flimsy intricate ideas out of which in his sober moments he has woven an ideal self are freed from the constraining power, and act to a given stimulus in the manner seen. So, too, many of the very old, from a gradual impairment of this mind power, present symptoms that may fairly cause them to be classed as general paralytics. We may meet with an example in some feeble old man of fourscore years, propped up in his chair, powerless of limb and vacant of mind, but with still one great idea of Self: Self is the one great topic that he harps upon from morning till night: there were no times like his times; no companions like his companions; in everything that is modern—or, in other words, that is quite out of the sphere of Self—there is only rottenness. No one knows more than he, or can boast a vaster experience. No one even now can manage his business as he can, and he would wish to see the man who could do this thing or that better than himself.

The symptom that illustrates, perhaps as well as any, the statement above made, that the disease consists in an unmasking of an imagined Self, is the occurrence of frequent fits of

melancholy and capricious sadness. These have their basis of reality in those sudden moments of doubt and despondency to which all men are at times subject, but those more especially whose ideas are lofty and aspirations high. In the youth full of ambition and romance it is perhaps most marked, and is recognised by a name; in the great speculator or great dreamer it will come to mar his thoughts or mock his soarings, and is perhaps most present when a flash shows him the hopeless disparity between his dream and the reality.

One other point of importance remains to be noted. As when there is any impairment of the originating mind energy, those mental processes which are the least automatic or the most constantly dependent on mind are the first to show evidences of the injury, so those processes that are the most automatic are the last to be affected. This affords explanation in the present disease. For although the flimsy strange ideas connected with his ideal state are luxuriating, he will still present perfectly reasonable notions connected with his actual self. Thus a patient possessed of several thousands of ideal pounds, large estates, and magnificent connections, will yet, in answer to a direct question, state correctly in most instances the amount of his wages, however insignificant, and will own to a trifling 30s. a week, while in the same breath he will talk of his legacy of some thousands. The idea of his actual income has become from frequent and constant repetition automatic, and he answers accordingly. In like manner, he will state correctly the price of his garments, of any jewellery he might be wearing, while he will talk at the same moment of a suit of gold or a chain of diamonds; and may consider his health perfect while acknowledging to certain past diseases, accidents, and infirmities. All such matters are familiar and defined, and being constantly passed in review in the mind, acquire a hold that the flimsy exaggerated ideas cannot lay claim to. The condition of the memory also presents characteristic features. Matters of recent occurrence that have had consequently but few opportunities for repetition, and that still involve consciousness when called into view, are of course far more directly dependent upon mind than matters of earlier date which have been so frequently repeated as to assume automaticity. So it will be found that the patient, while he will furnish with wonderful accuracy details of his earlier life, will yet give but a vague account of recent events, and will confuse dates and occurrences strangely. This defect in memory is often one of the most marked of the earlier symptoms of the disease, and is especially to be noticed in persons of business propensities and formal habits.

ART. VII.—CONDITION OF LUNACY IN ENGLAND AND WALES.

THE thirtieth annual Report of the Commissioners in Lunacy has just appeared, containing a complete record of all facts connected with lunacy in this country. We find that on January 1st, 1876, there were on the official books of the Commissioners 64,916 registered lunatics, showing an increase of 1,123 over that of the year preceding. Of this number 7,509 are registered as private patients, and 57,407 as paupers. There are also 245 lunatics found so by inquisition, and residing in charge of their committees. They are not included in the category alluded to above.

The average annual increase of lunacy during the past ten years has been 1,726; that is to say, 149 private patients, and 1,577 of the pauper class. It is worthy of remark that the total increase of the past year over the one preceding has been less than in any other year of the series commencing in 1859.

Among the pauper patients are included only those “maintained wholly or in part by, or chargeable to, parishes, unions, counties, or boroughs;” and among private patients are included those maintained at the cost of the State, at the Royal India Asylum at Yarmouth, Naval Hospital at Netley Abbey, Grove Hall, Bow, and Broadmoor Criminal Asylum.

The increase during the year of private patients is 119, as compared with 98 last year, and an increase of 1,004 of paupers, as compared with 1,668.

The private patients have increased by 51 in licensed houses, 70 in registered hospitals, 19 in county and borough asylums, and by 3 in the naval, military, and India asylums. There has been a decrease in number by 19 in Broadmoor Criminal Asylum, and by 2 in single patients under private care.

The increase of pauper patients is in county and borough asylums by 1,606; in Broadmoor Criminal Asylum by 19; in workhouses by 133; and at the same time this class has decreased in registered hospitals by 72, in licensed houses by 352, and the outdoor paupers are reduced by 330.

In the last Report the Commissioners noticed with satisfaction that the practice of sending male convicts to Broadmoor has been discontinued, and during the past year this class of patients has been provided for at Woking Invalid Prison, and

as a consequence, a decrease has occurred in the number of private patients at Broadmoor—accounted for, no doubt, by deaths and removals to county asylums of convicts whose sentences have expired.

The large increase of 1,606 paupers in county and borough asylums, and the considerable decrease of 352 of this class in licensed houses, is in a great measure explainable by the opening of the second Kent Asylum at Chartham, and of additional wards at the New Lancashire Asylum at Whittingham, as well as by the completion of considerable enlargements of the Surrey Asylum, both at Brickwood and Wandsworth. The decrease of 72 paupers and the corresponding increase in the number of private patients in registered hospitals are chiefly due to changes which have taken place at the Northampton hospitals, and it is expected that when these changes are here completed the whole of the paupers will be removed from this institution, and it will be exclusively devoted to private patients.

There are 15,509 patients classed as in workhouses. Of this number 4,205 were in the Metropolitan District Asylums for Imbeciles at Leavesden, Caterham, Hampstead, and Clapton. These institutions were, by the Metropolitan Poor Act, 1867, declared to be workhouses for the purposes of the Lunacy Acts. The Report contains twelve interesting tables relating to the distribution of the insane during the last sixteen years, and supplies detailed information as to the classification, and numbers of the insane in England, together with the ratio which they bear to the population; the admissions, discharges, and deaths, with the statistics of recoveries and mortality of patients detained under certificates in asylums, hospitals, licensed houses, and under single care. By a careful perusal of these tables we find that the proportion of lunatics as compared with the population is 26·78 ratio per 10,000, whereas in 1866 it was 22·26; the population at present being 24,244,010, whereas in 1866 it was 21,409,684. The number discharged as recovered during the past year, by reference to Table IV., we find to be 4,909, as compared with 4,828 in the preceding year, whereas the deaths have been 4,592.

We see with regret by Tables V. VI. and VII. that the recoveries are nearly 4 per cent. lower than those of the year previous, and 1·5 per cent. below the average of the last 17 years. The mortality also has been somewhat unfavourable, being about ·5 per cent. higher than that of the previous year and than the average mortality of the last fifteen years.

The proportion of patients contained in the county and borough asylums who on the 1st of January were considered curable amounted to 7·17 per cent. of the total number, as

compared with 7·47 of the number resident on the 1st of January, 1875.

The Report contains a general description of the various county and borough asylums. The Cambridge Asylum at Fulborne continues *dangerously overcrowded*. We are at a loss to understand why the suggestions made so frequently by the Commissioners concerning this asylum have not been carried out and a second medical officer appointed; the matter has been frequently brought forward by Dr. Bacon, the Medical Superintendent, but the authorities at present have ignored these constant appeals for further medical aid, and, as a consequence, should anything serious occur at the asylum, they will have but themselves to blame in the matter. An epidemic of erysipelas broke out in February and March 1875 at this asylum, in consequence of the overcrowding of the patients, and if the long-delayed enlargement is not soon effected, the patients' health will materially suffer. We have had many opportunities of visiting this asylum, and can testify to the onerous duties of the Medical Superintendent, who does his utmost to further the interest of the establishment and the well-being of the patients committed to his charge; but if his exertions are not properly supported by the governing bodies, his laudable efforts must be but futile.

The condition of the patients on admission to the Carmarthen Asylum is considered to be most unsatisfactory. The following passage occurs in the entry made on the visit to this asylum, relative to the condition of patients on admission:—

“We are informed that the condition of patients when brought to the asylum continues in the majority of cases to be most unsatisfactory, giving evidence of neglect, want of nourishment, and rough usage. An old woman was admitted to-day, while we were in the house, and we afterwards saw her in bed; she was extremely feeble, and bore upon her person numerous marks of violence, and there was strong reason to think that she had broken ribs. This woman was brought to the asylum by a policeman, and was not accompanied by any female; and we are sorry to report that this most objectionable mode of bringing patients here is the rule, with but few exceptions, from the Cardigan Union. It is needless to point out the impropriety of entrusting an insane woman during a long journey to the sole charge of a policeman; but there remains the further and very strong objection to the practice, which applies equally to both sexes, that the removal of the patient to the asylum by a policeman impresses them with the idea that they are prisoners, and about to undergo punishment, instead of being sent to a hospital for care and treatment.”

A case of suicide is related as having taken place at the Cheshire Asylum, and also at Durham. This latter asylum is about to be considerably enlarged. Two suicides have occurred at the Lancashire Asylum, one by a patient cutting his throat with a knife, the other by strangulation; in both instances the attendants appear to have been to blame. Another suicide has taken place at the Whittingham Asylum.

A suicide which has taken place at the Littlemore Asylum, Oxfordshire, is reported as follows:—

“A. C., a single woman, æt. 34, had been an inmate of the Littlemore Asylum since May 1875. As she was reported to be suicidally disposed, a special card of caution was passed with her from ward to ward, but the asylum authorities did not consider, from her conduct, that she seriously contemplated either escape or self-destruction. In the evening, however, of Saturday, 11th September, she contrived to escape from the grounds where, with other patients, she was taking exercise. She was missed almost immediately; but although the police and the neighbours were given notice of the escape, she was not found all Sunday. A little before six on Monday she was seen near the river by two men, who followed her while she ran across one meadow by the waterside, through a hedge and over a ditch (dry), across a second meadow, at which point she was stopped by a deep ditch. Here she jumped into the junction of the ditch with the river, the water being nearly up to her armpits. The first man who followed jumped in, though unable to swim; but the bottom being very muddy, he could not reach the woman unless she held out her hand; this he asked her to do, but she thrice refused, began struggling, and lost her footing. By this time the second man had come up; and he, with a ladder floating in the water, succeeded in reaching the patient; but she was already under water, a considerable way out from the bank, the stream being rather strong at that point. Between them she was got out of the water, not dead, yet unable to speak. The men carried her to the nearest inn, about 300 yards. During her passage thither she groaned and breathed several times. They believed she was in the water about three minutes. Dr. Sankey was called, and was on the spot by half-past six, but she was then to all appearance dead, and every effort to restore life was in vain.”

A patient at the North Riding Asylum, Yorkshire, destroyed himself through the carelessness of an attendant.

Reference is made to the extension of the Birmingham Asylum, and to an epidemic of typhoid fever, which occurred at the Bristol Asylum, owing to the impurity of the drinking water. Immediate measures were suggested by the Commissioners

for remedying the evil, and negotiations with the Bristol Waterworks Company were set on foot.

“An attempt at suicide took place at the Bristol Asylum.

“The facts connected with the case are remarkable, and interesting from a purely medical point of view, affording a remarkable instance of the recurrence after a lapse of years of a morbid propensity once developed in the mind of a patient of the melancholic type with a suicidal tendency; and also as showing how much may be done by skill and care to remedy an injury which at first sight seems likely to prove fatal.

“The particulars which follow we give nearly as reported to us by the medical superintendent:—

“A female patient, E. W., æt. 43, was admitted for the third time to the Bristol Asylum on the 15th June, 1875.

“On the occasion of her first residence there in 1863, she swallowed (with a distinct suicidal intention) the entire contents of a domino box, 54 dominoes in all, 50 of which were recovered by vomiting, along with fragments of stone weighing 14 oz., while four dominoes and some stones passed through the intestines. A full account of this incident will be found in the report of the late medical superintendent to the Committee of Visitors of the Asylum for the year 1863.

“E. W. was soon after discharged from the Bristol Asylum, for transfer to that belonging to Somersetshire, where she was chargeable, but she escaped on the road, and was not retaken. Between this date and 1871 she appears not to have been under care and treatment. In May of that year she was re-admitted to the Bristol Asylum, still with suicidal tendencies, and after two actual attempts, she was again removed to Wells, and discharged thence recovered, in 1873.

“After another interval, she returned, as above stated, to the Bristol Asylum in 1875, twelve years subsequently to the swallowing of the dominoes, which circumstance was, we believe, quite forgotten in the asylum, where many changes in the staff, including the appointment of a new medical superintendent, had occurred. The certificates again give a history of renewed suicidal attempts.

“On the 31st July, 1875, early in the morning, she got possession of the fifteen shutter screws belonging to No. 12 Ward, and in the course of three quarters of an hour she swallowed thirteen of them. The screws were new ones; and thirteen of the same pattern weighed $24\frac{1}{2}$ oz. avoirdupois weight. She made a confession before the screws had been missed, and stated the number to be thirteen. To prevent injury to the coats of the stomach, Dr. Thompson, on hearing of what had happened, administered a mess of tapioca pudding and gruel, of

which, without much persuasion, she took a very large quantity.

"The screws consist of a body $2\frac{1}{2}$ inches long, $\frac{1}{2}$ inch thick with a square head, and with a raised collar nearly $\frac{3}{4}$ inch in diameter.

"It will be seen that to attempt to recover by the œsophagus any one of those swallowed was out of the question, and it was even doubted if the pyloric valve would take up any one of them and pass it on. On the 10th of September, however, the patient passed some of the screws by the bowel, and on the 4th of February she passed the last of the thirteen in the same manner. The dates of ejection were 10th September, 19th October, 26th November, 27th November, 3rd December, 3rd January, 9th January, 19th January, 20th January, 3rd February, 3rd February, 4th February, and 4th February.

"During these months the patient suffered much pain, which she said was of a spasmodic nature, and very like to labour pain (she had had children). The treatment was chiefly dietetic, but in addition she had, night and morning, subcutaneous injections of morphia. At first purgatives were avoided, but ounce doses of olive oil were given once a day, and enemata occasionally. Latterly the medical officers "became more bold," and gave large doses of castor oil, and it was after this bolder treatment that the screws came away the faster. On the 3rd of August E. W. passed a large piece of an earthenware chamber utensil by the bowel, which was followed by severe hæmorrhage, but only once did her temperature rise over the average point. The weight of the recovered screws was $19\frac{3}{4}$ ounces, showing a loss of $4\frac{3}{4}$ ounces.

"'The poor woman,' Dr. Thompson observes, 'is a melancholic of the most abject type, and with a touch of moral obliquity. I do not think she wished to commit suicide, but rather to draw attention to herself, and to cause trouble.' This opinion is, of course, entitled to full consideration, but it is to be observed that during the preparation of the present report, the Wells Asylum, where E. W. now is, has been visited, and that on this occasion she admitted to one of our colleagues that her object was to destroy herself. She appeared in fair bodily health, though still in a state of extreme mental depression."

A murder of an attendant has occurred at the Leicester Asylum. An attendant of the name of John Smith was stabbed by George Fordham, a pauper patient, in the abdomen, and died in consequence of the injuries received in about an hour and a half. The patient was 62 years of age, and previous to admission had been an inmate of the Leicester Union Work-

house for some time, being transferred to the asylum on account of violent and dangerous propensities. On admission he was passionate and quarrelsome, making groundless and exaggerated complaints, and was subject to epileptic seizures. Nine months after his admission he was overheard to say that he would hunt the attendant, Smith, to death, even if it were fifty years hence. He killed the attendant with a carving knife which he had procured from a cupboard, and which singularly enough had been left unlocked by Smith. After the discovery of the murder, Fordham exclaimed, "I have had my revenge; you can hang me now as soon as you like."

The coroner's jury returned a verdict of wilful murder, and he was committed for trial at the winter assizes at Leicester. The prisoner pleaded not guilty. The facts connected with the murder were undisputed, but the counsel for the defence urged an acquittal on the ground of insanity. Mr. Justice Denman, who tried the case, pointed out to the jury that the mere fact of his labouring under a delusion was not a sufficient excuse in law to justify an acquittal on the ground of insanity. The judge, in summing up, stated that "where a man committed a crime for some supposed grievance if he knew that what he was doing was contrary to law, he was to be held responsible for his actions. If a man killed another while under a delusion that he himself was about to be killed, and that he was acting in self-defence, he would not be punishable; but if a man did so for some supposed injury to his character or fortune, then the man would be responsible. If the jury were satisfied that although Fordham was suffering from delusions he knew what he was doing, and was not merely taking life under an erroneous impression that he was defending his own life, but killing because he felt himself injured in some form or other, it would be their duty to find him guilty." The prisoner was found guilty of murder, but with a strong recommendation to mercy, by a jury who considered that, notwithstanding he occasionally suffered from delusions, at the time he committed the deed he knew he was doing a wrong act. He was sentenced to death in the usual form, but was afterwards reprieved, and sentenced to penal servitude for life.

The absurdity of the rule of law laid down in cases of insanity is here very apparent. We read of a lunatic, who is legally confined under a certificate, being taken from the asylum and arraigned as an ordinary criminal of sound mind, and although his insanity was never disputed, is sentenced to death. The doctrine between a knowledge of right and wrong among the insane is frequently brought forward as an argument against an acquittal upon the ground of insanity, but

we must confess that the theory is a very absurd one, and as the majority of lunatics are perfectly cognisant of it, it is to be hoped that a statute will soon be passed repealing the present existing law regarding the trying of lunatics which we can only regard as a disgrace to our country.

At the commencement of the year there were 2,796 lunatics confined in registered hospitals, of which number 1,340 were males and 1,241 females belonging to the private class of patients, whereas 115 were males and 100 females paupers. The general condition of these hospitals may be considered favourable, with one or two exceptions. A few suicides are reported at some of the hospitals, but this is only to be expected when the number of lunatics in one establishment is considerable.

There are 39 private asylums in the Metropolitan district licensed by the Commissioners, and 62 beyond their immediate jurisdiction licensed by the justices. The condition of these asylums may generally be stated as satisfactory.

On the 1st of January last there were 399 patients confined under certificate in unlicensed houses, and of this number 129 were Chancery patients. One suicide is reported as taking place at Weston-super-Mare of a patient under the care of a medical man. We are of opinion that it is far more advisable to place patients in asylums than under private care, in the former of which they have greater chances of proper treatment and care.

On the 1st January, 1876, there were 15,509 lunatics confined in workhouses, being an increase of 133 over the number last year. This number includes 4,205 patients resident in the Metropolitan District Asylums at Leavesden, Caterham, Hampstead, and Clapton, which are still regarded as workhouses.

The Commissioners report on the whole favourably of the condition of the lunatic wards in workhouses, and with respect to the accommodation and diet supplied to the inmates. The relieving officers of some of the parishes appear to entirely disregard the provisions of the 67th section of the Lunacy Act, and patients labouring under all varieties of insanity are sent to the workhouses, no subsequent steps being taken by them to promote their removal to an asylum; the result of this practice is that many lunatics are so confined without having any treatment, until they either die or their case becomes chronic. On this point the Commissioners say:

“We have constantly drawn attention to this subject, both in our Annual Reports and in others ways, but we regret to say with comparatively little effect; and in any future legislation we think that more stringent provisions should be made to

prevent delay in sending patients to asylums, and also to restrict, as a general rule, the admission of cases into the workhouse, unless they have passed through the asylum, and are certified by the medical superintendent as being harmless and chronic, and suitable for removal."

The relieving officers appear entirely to ignore the law by which they are required to give knowledge to a justice of the peace within three days of their obtaining information that a pauper lunatic is resident in their parish, and should be summarily proceeded against. The Commissioners do this where evidence of any wilful neglect of duty has taken place, but as a rule the technical difficulties in obtaining a conviction are insurmountable, as they are under the control of the board of guardians.

The Report contains many instances of the evils attending the indiscriminate reception and detention of insane persons in workhouses, cases being given which have come to the knowledge of the Board *casually*, no official intimation of accident or death being sent to them.

Two male patients destroyed themselves at the Marland Workhouse, Rochdale — one by cutting his throat with a razor, never having previously evinced any suicidal tendencies. The second case was sent to the workhouse by the relieving officer with the usual order, "of unsound mind," and at the back of this "order" was written by the master, "Attempted suicide; brother cut his throat; cousin hanged himself." In this case *no* notice was given by the relieving officer to a justice, pursuant to the provision of the 67th section of the Act, and there is no doubt but that the suicide was caused by the lunatic being placed in a workhouse instead of being removed direct to an asylum. The medical officer failed to detect that the patient was suffering from suicidal melancholia, and hence the fatal catastrophe.

Other cases are quoted in the Report, all of which testify to the neglect of duties by the relieving officers.

The following cases illustrate the mischief done by placing lunatics suffering from acute mania in workhouses, instead of at once removing them to an asylum. We give the verbatim account of each case; the neglect of duties by the relieving officers will be apparent without any comments at our hands:—

"1. A native of Zanzibar, who was brought to Southampton in the capacity of a wet nurse, became insane and violent, and her master applied to the relieving officer to remove her from the house, agreeing to repay to the Union the cost of her maintenance. The relieving officer, "in the hope (as the guardians stated subsequently) that the woman would shortly be able to

resume service," forcibly took her to the workhouse as a pauper chargeable to Southampton, where she was classed as a lunatic. It is to be observed that the only possible justification for this proceeding, namely difficulty in obtaining the attendance of a justice at the employer's abode to examine the woman, and order her removal to an asylum, was never put forward.

"The patient remained in the workhouse for six days, the relieving officer meanwhile neglecting his express duty, under the Lunacy Act, of giving notice of such case within three days to a justice of the peace, until requested to give such notice by the medical officer of the workhouse. The woman had then been six days taking little food, and in a constant state of excitement and violence. The justice's order was given the same day, and on the next, when the relieving officer came to remove her as a pauper to the asylum, she was found to be in so exhausted a state that it was considered unsafe to remove her, and two days afterwards she died, having been ten days in the workhouse. There was no inquest in the case, nor any public enquiry into the circumstances, which only casually came under our notice upon visiting the workhouse, when a female imbecile who assisted in taking charge of the patient above referred to, was found with traces of a severe wound on the face, which, upon enquiry, was ascertained to have been caused by a bite inflicted upon her by the insane African. Had this patient been placed, as she should have been, under treatment in an asylum, instead of being kept in the workhouse, her life would probably have been saved. The whole of the facts were communicated by us to the Local Government Board, and they had some correspondence with the guardians, who contented themselves with the assertion—and it was nothing more—that the deceased was not a pauper when brought by the relieving officer to the workhouse, and with the statement, which, as has been shown, was untrue, that the Lunacy Acts had been 'strictly complied with.'

"2. The second was a case in which a double murder followed workhouse treatment of a lunatic.

"A man of the labouring class resided with his aged parents. He had suffered from sunstroke, and was in receipt of a sick allowance from a provident club. He began to act strangely, 'tore up a petticoat as bewitched, and threatened his mother.' The overseer of the parish, a neighbour, requested the medical officer of the district to see the man; the doctor came immediately, but the man had then left home and gone to London. The doctor at once went to the overseer, and told him 'he must have him found.' The man returned from London next day, and was then found wandering in the fields, and he was taken to the over-

seer's residence. The medical officer was again sent for, and saw him the same day; the man appeared to him to be in a wild and insane state, 'and he ordered him to be kept under supervision that night, and advised his prompt removal to a place of safety.' The overseer kept the man till next morning, and then took him, against his will, to the Lexden Union Workhouse, where, on the overseer's order, he was admitted as insane, and in a state of excitement. In the workhouse the man gave expression to a delusion that he was married to the overseer's daughter, but appeared to be otherwise rational, and gradually recovered from his excitement. The medical officer of the workhouse classed the man as insane in the medical relief book, but after nineteen days' stay in the workhouse, he discharged him, and the man then went back to his parents' house. The medical officer of the district there saw him a few days after, and, as he testified, 'not much altered, for upon my visit to him, which was for a bodily disease, he told me in his peculiar way that he could see blood.' He at once informed the lunatic's mother that it was not safe for his parents to be with him alone. A few days afterwards both were savagely murdered by the lunatic, acting under delusions of an insane character.

"Had the overseer in this case not taken this lunatic to the workhouse, but complied strictly with the Lunacy Acts, there is every reason to believe that the lunatic would have been sent by a magistrate to an asylum, where the experience of the medical officer would have prevented such a premature discharge. We should have prosecuted the overseer had we not been advised that as he had acted under medical instructions in taking the lunatic to the workhouse as a place of safety instead of before a justice, the penalty inflicted would be probably nominal.

"3. A male patient, J. P., about 36 years of age, who had been an inmate of the imbecile ward of the Bury Union Workhouse for about twelve months previously, became violent and maniacal on or about the 26th June, 1875. On 1st July he was removed from the workhouse, and admitted into the Prestwich Asylum. On examining him upon admission, he was found to be severely bruised, and to have one or more broken ribs. He died on the 8th July. A *post mortem* examination showed that in fact six ribs were broken, and the verdict of the coroner's jury attributed his death to the effect of these injuries; but the jury were unable to say when, how, or by what means they were caused. Little doubt, however, could be felt but that the ribs were broken either at the workhouse or during the short journey from thence to the asylum, for there was no reason to suppose that the mischief could have occurred after admission there.

"An enquiry was instituted by the guardians, at the suggestion of the Local Government Board, whom we had addressed on the subject. The attendants in the imbecile ward, the workhouse medical officer, and other officials, besides the patient's sister, who had been in the habit of visiting him, were all examined. Little additional evidence, however, was obtained as to the cause of the injuries; what evidence there was led rather to the conclusion that they were sustained in the course of the drive, in a cab, from the workhouse to the asylum. The relieving officer, assisted by the head attendant, or male nurse of the ward, effected the removal, during which the patient appears to have been much excited, and knocking himself about.

"There was nothing to point to any intentional ill-usage of the deceased in the workhouse; but it is matter of comment that earlier steps were not taken to remove him to the asylum. Page, the 'nurse,' in his evidence before the guardians, stated that J. P. had 'shown symptoms about a week before; but that on Saturday, 26th June, he was fit for no other place' than a single room, in which he was placed and restrained with gloves. One of Page's assistants in the imbecile ward carried the commencement of the attack of mania still further back, averring that the patient was 'going bad for a fortnight' before he was put in the single room, and that 'for the last eight or nine days he became very violent.'

"No explanation was offered of the delay in the removal. Even if the necessity for this step was not apparent sooner (and the evidence would lead us to believe it must have been), it is difficult to justify the retention of this patient in the single room of the workhouse, under restraint, from Saturday, 26th June, to Thursday, 1st July."

A few cases of illegal detention of persons of unsound mind have been brought before the notice of the Commissioners, and in one instance it was found necessary to prosecute. The case was as follows:—Miss Peyton, æt. 63, was living under the care of Mr. and Mrs. Govier at Sidmouth. From evidence which subsequently came out, it appeared that at one time she was tolerably prosperous, but through intemperate habits she lost her occupation and expended her savings. She placed her all, amounting to £25, in the hands of a relative, who handed it over to the Goviers, with the consent of Miss Peyton, on the understanding that she was provided with accommodation in an adjoining house. A room was taken for her at the rate of 1s. 6d. per week.

Three months after her occupation of this room she was visited by the before-mentioned relative, accompanied by one

of the guardians of the parish, who gave the following description of what they saw:—

“That, in reply to the question of how she was, she gave an unintelligible, wild and chattering answer; that, on the rug which she had over her being turned up, the smell was so offensive that it was impossible to remain in the room; that the bed and sacking under her were sodden with filth; and that in a corner of the room was a heap of filthy and offensive feathers.”

On the following day she was again examined by a medical man and a police constable, who confirmed the accuracy of the description of her state. An opinion was expressed that she was of unsound mind, and forthwith she was removed to the County Asylum, as a person of unsound mind, not under proper care and control, and was then, according to the opinion of the medical superintendent, in a state of senile dementia.

The patient died within three weeks of admission. The Goviers were consequently proceeded against for taking charge of a person of unsound mind for profit, and for wilful neglect, violating the 90th sec. of 8 and 9 Vic. c. 100.

The case was heard before Mr. Justice Quain, when the defendants were indicted for wilful neglect as well as for the illegal care of a person of unsound mind, for profit.

The questions submitted to the jury were:—

1st. Was Thomasine Peyton a person of unsound mind at any time during her stay in the house, to the knowledge of the defendants?

2nd. Did they at any time whilst in the house take the care or charge of her as a person of unsound mind?

3rd. If so, did they do so for profit?

4th. Did they wilfully neglect her?

All these questions being answered in the negative, the defendants were discharged.

An attendant named Marsh, under the influence of drink, was proceeded against by the visitors for injuring and fracturing a rib of a patient confined in the Wilts County Asylum. He was tried at the Assizes, and sentenced to four months' imprisonment.

The following circular letter has been sent by the Commissioners to every hospital and licensed house:—

Office of Commissioners in Lunacy:

19 Whitehall Place, S.W., March 1, 1875.

To Proprietors of Licensed Houses, and Others engaged in the Cure of the Insane.

The Commissioners in Lunacy, having reason to suppose that the requirements of section 40 of the Act 25 & 26 Vic. c. 111, regulating

the transmission of the correspondence of private patients in asylums, hospitals and licensed houses, and of single patients, are not always carefully observed, desire to call attention to the language of the section, of which a copy is subjoined.

It will be remarked that no power is given to the person signing the order of reception, or to any other person (save the Commissioners, or Committee, or Visitors), to sanction restrictions on the correspondence of a private patient; and it follows that no instructions received from any other person other than the Commissioners, Committee, or Visitors could be pleaded as a justification of any alleged breach of the provisions of the section.

It is often desirable, for the patient's own sake, to place some check on his correspondence. Where this is done, however, the greatest care should (on every account) be taken strictly to follow the directions of the Act.

By Order,
C. S. PERCEVAL, Secretary.

The Report concludes with the usual appendices and descriptions of the various hospitals and county asylums, containing a full report of each one.

The Blue Book appears to increase in bulk every year, and contains most valuable information carefully obtained by the Commissioners, which speak as to the zealous and earnest efforts of the Board to place before the Lord Chancellor every fact relating to the treatment of the insane; and it is a matter of congratulation that in no country are the interests and welfare of that helpless class of humanity so protected as in England.

ART. VIII.—THE PHYSICAL SIGNS OF REASONING MADNESS ("FOLIE RAISONNANTE").

(Translated, condensed, and slightly altered from the Report of Debates in the Société Médico-Psychologiques, Paris, on a Paper by M. Jules Falret, in the numbers of the "Annales Médico-Psychologiques, May and July 1876.)

BY M. LEGRAND DU SAULLE.

A NEW question has been submitted to our society. Do there exist physical signs of la Folie Raisonnable, and how can we determine them? Besides the intellectual peculiarities of this psychose, can we, practically, rest upon a group of physical signs as characteristic of the disease? I reply in the affirmative. I would in the first place inquire as to the order in which the bodily signs present themselves; and I esteem this as indispensable, in order to place psychology upon a legitimate scientific basis, and to redeem it from the doubtful position in which it has been placed by the Press, the Bar, and the Magistracy. The necessity for adopting the precision which characterises modern medicine is illustrated by observing what now occurs in the dealings of an alienist in a court of law, where there is no longer any discussion as to where reason ends and insanity begins, where philosophical subtleties are dispensed with; where psychology is ignored, and where counsel, judge, jury, and physician confine themselves strictly within the bounds of practical observation. Such is the advantage of experience over speculation. Formerly we guillotined insane criminals under the influence of a doubtful theory: to-day they are sent to an asylum for observation and restoration. The dwelling and due sphere of psychology ought not to be in our libraries and antiquarian museums, but in the wards of our hospitals and at the bedside.

It is, then, essential in all inquiries as to mental conditions, and especially into that of Folie Raisonnable, mania without delirium, moral insanity, or derangement manifested in act, to retrace the whole of the medical history and all previous pathological conditions of the lunatic. In such a survey the principal crises or constitutional changes are as follows: Puberty, and the mental states associated with it; anomalies in the development of the organs, and of the feelings connected with virility; cerebral symptoms indicative of congestion and hæmor-

rhage—conditions which continue throughout and close the life of the patient. Such are the grand categories or epochs connected with the manifestations of the mental conditions of which we treat; but to enter upon a more detailed exposition of the characteristics of them.

1st. The cranium is very frequently malformed. Microcephalism exists only in a few cases, but in many there is great irregularity of the surface, prominences, depressions, ridges, on various parts of the skull. Calmeil states that of thirteen Reasoning Lunatics twelve presented a marked flattening of the posterior part of the head. The coincidence between the mental infirmity and the physical deformity in this series is worthy of serious consideration. My own experience would show that this relation is met with in one-half the cases examined. All malformations acquired subsequent to birth are excluded from this calculation. The custom of bandaging the heads of infants before the closure of the sutures and the ossification of the bones leads to great cranial distortion and deformity. The results from such interference are likewise omitted from our estimate. Sometimes the face presents anomalies as great and grotesque as the skull; such as absence of harmony, symmetry, and proportion between the different features, so that the individual is odd and ugly. Among the more important deviations from natural conformation are squinting, nystagmus, choreic contraction of particular muscles, enormous size of mouth, thickening of the lower lip, defects or diseases of the teeth, vaulted palate, malposition or imperfect development of ears, imperfections of external senses, hyperæsthesia, and neuralgia, gastralgia, and many other indications of unhealthy, nervous, or imperfect action. It may be noted in passing that these defects or perversions are all of hereditary origin. One or other of these indications may be detected in every patient of this class, and it seems expedient that they should be associated with the clinical and mental symptoms as highly significative in framing a diagnosis.

2nd. Mental disturbance at puberty. This period is, in accordance with the confessions of the sufferers, pregnant with perils and disorder, and, in despite of all resources, may eventuate in delirium. The susceptibility is so great that the least emotion, contrariety, constitutional change, or common cold, almost inevitably develops a paroxysm of delirium. Thus a single glass of wine or a convivial party will, notwithstanding habitual temperance, dethrone reason and simulate the first stages of drunkenness. Chlorosis, amenorrhœa, hysteria, tendency to syncope, feeling of suffocation, lachrymoseness, catalepsy, chorea, somnambulism, and all the signs of the minor neuroses

widening into abstinence, mysticism, and even into mild mania or melancholy, are one or all encountered among females. Boys of from 12 to 16, if removed from their native mountains, become nostalgic, mischievous, kleptomaniac, and vagabond, tempted to incendiarism or suicide; and may be found ultimately under the charge of the police, labouring under diseases contracted from the most degraded or abominable practices. The close of such a morbid career is either the galleys or the guillotine.

N.B.—In towns children of this type are choreic, somnambule, erotic, pietistic, or victims of persecution. If affluent they are slaves to hypochondriasis and crime. I might quote a case of a young lady so hypochondriacal as to be almost insane, who was completely restored by the water cure, riding, travelling, fishing, etc., and cod-liver oil; and of a youth labouring under genuine hysteriform symptoms, hemiplegia, and anæsthesia of the same side, whose restoration may be expected. These odd beings will ultimately be urged by their intellectual activity beyond or outside normal lines of conduct, and even before the invasions of such morbid mental phenomena as are patent to all. Their errors may be merely fantastic, eccentric, irrepressible, querulous, conceited, violent, lazy, instinctively wicked, and are likewise marked by cruelty, by habitual deceit, by indisposition to regular employment, and by dishonest habits. Undisciplined, they torment their family, defy their teachers. Their pathological perversity is incurable. Acute and clever, they acquire and retain knowledge with a marvellous facility. They may be prodigies in the arts of music, drawing, calculation, poetry; or may become orators, improvisators, or actors. But at the critical epoch of puberty their brilliant faculties fade and die out; refuge is taken in the Navy or the Army, where insubordination exposes to court-martial and punishment. Marriage precipitates the catastrophe in girls. Such crises, according to M. Falret's just prognosis, may evolve into either increased mental feebleness or *la Folie Raisonnable*. We may meet the distinguished companions of our college life, after passing through a stage of sudden imbecility or the depths of scandalous debauchery, wild adventure, and equivocal speculation, as reasoning madmen in the prison or police office. Selfishness is the aim and end of their being. They prove disobedient children, inconstant lovers, unfaithful husbands, negligent fathers; their heart is cold and hard. Cowardly, corrupt, jealous, vain, ambitious of distinction without the power of obtaining any eminence except that of extravagance and infamy, they combine a group of pernicious qualities which constitute them the disturbers and contaminators of all with whom they come into

contact. They are in fact the dangerous classes of society, the material out of which waifs and strays, conspirators, criminals, visionaries, and speculators are formed.

3rd. The absence of the organs and of the passions and functions which constitute and characterise the respective sexes. In this category there may either be absolute hermaphroditism or partial, but marked, departures from the normal structure and relations of parts. There may be beardless men, who play the part of women, and bearded women, who become soldiers, sailors, enter into plots or professions which permit of the exercise of the sterner and masculine qualities of humanity. With these characteristics are often associated symptoms of actual insanity, or vices which claim such an origin. The non-development or malformation of the organs under consideration are often met with in the weak-minded and wickedly disposed; but while such individuals are identified by certain observers with the class under consideration, M. Pinel and his school elevated Reasoning Madmen to the highest rank of lunatics in intelligence and in strength, though not in stability or subordination of mental powers. The prevalence of solitary vices, erotic practices, and of sterility in conjunction with anatomical defects, cannot be separated from the description of *Folie Raisonnable*; but although science purifies all that it touches, a narrator recoils from enlarging upon the darker and more revolting colours of the picture. The nature of such atrocities may, however, be conjectured from the fact that in some cases the only betrayal of morbidity in Reasoning Madmen has been cohabitation with the dead.

4th. Congestive attacks. An example of an approximation to *Folie Raisonnable* may be found in the temporary arrestment of the mental symptoms in General Paralysis and by such exceptional irregularity in their succession as to set diagnoses at defiance. Reasoning Madmen, and such as I have previously represented as hereditarily so, are throughout their whole life subject to attacks of congestion either with or without epilepsy or hemiplegia. When it is recollected that such an attack, however formidable, may pass away, that the embarrassment in articulation may give place to the ordinary mode of utterance, when the tremor and hyperæsthesia of the limbs are followed by the re-establishment of the natural amount of voluntary power and sensibility, leaving no other trace than Reasoning Alienation, it will be understood that great difficulty and perplexity attends diagnosis, and that extreme caution should be exercised in speaking of the future or ultimate issue of the disease. The divergence and absolute contrariety of opinion between medical men may be understood and illustrated by supposing that they

have examined a patient during and subsequently to the presence of congestion, a favourable opinion being countenanced by the intermission of all affections of reason, speech, voluntary motions; the unfavourable prognosis being fulfilled in sudden death from apoplexy or some other cerebral disease. A typical example of such a result may suffice. A member of the Academy drowns himself without motive. The biography of his son is as follows: At twelve he is odd, ungovernable, unsettled, and a source of deep disquietude to his mother. At school he is clever, idle; as a pupil at the Naval Dépôt, though brave, ambitious, and regarded as of good promise, he is dismissed for insubordination. Once more in Paris, he yields to the attractions of the theatre, prepares to go upon the stage; sells the furniture of his home in order to obtain funds to carry out his design, which merges in his association with itinerant exhibitions and actors. As a clerk to the Minister of Public Instruction, he is indocile, irregular, unconscientious, unsociable and useless. Even while in this position he rushed into the provinces to join some of his former doubtful and disreputable companions. Profuse, nomadic, disgraceful in his conduct, he, abandoning his relatives and occupation, appears in California as a priest, where it was rumoured that he might possibly be elevated to the episcopate. He returns to Paris accompanied by a young prostitute, heir to property; now dividing his time and attention between the theatre and the church, and wearing a hybrid garb between that of a priest and a layman. Up to this point this unfortunate has been regarded as a *mauvais sujet*, a foe to himself and to his family; but a physician discovered that during twenty years he had been subject to cerebral congestion, unattended with convulsion or loss of consciousness, but that, notwithstanding the temporary suspension of consciousness, he could not be treated or confined as insane.

N.B.—In 1874 his conversation became unconnected, incoherent and paradoxical, embracing asseverations of his perfect sanity, elevated genius, his achievements in California, his abandoned course in Paris; at the same conjuncture his expenditure became excessive, and he was habitually intoxicated. In the winter of 1874–75 he had three cerebral seizures, attended with temporary hemiplegia and tremor. After disappearance for several days he became amnesic, unsteady in gait, more and more debauched and shameless, squandering or being robbed of every farthing extorted from his friends. Emancipating himself from the trammels of his family, he resided with an old servant in the suburbs, frequently visiting Paris, but forgetting to return. Found insensible in the streets, he is taken to a public hospital, and again taken home. His disease now assumed the form of

epilepsy, when he was placed in a private asylum, where, after a partial restoration, he dies suddenly, apparently from apoplexy, and it is inferred from hæmorrhage of the bulb.

The author concludes that, independently of mental signs, there may be always detected physical symptoms in reasoning madmen. 2ndly. A retrospect of the history of persons thus affected demonstrates that at the period of puberty they are affected with certain transitory disorders of the intellect. 3rd. Anatomical peculiarities in the organs and abnormal manifestations of the animal propensities are observed in them. 4th. That they are liable at various ages to suffer from congestive conditions of the brain which have not been hitherto recognised.

M. Berthier declared this form of alienation to be frequent among females belonging to the affluent classes; that it might be regarded as the prelude of morbid activity, as the first germ of other psychical affections; that it was the shadow of graver symptoms, clouds portending a storm, and conditions falling almost within the domain of physiology. Its victims are, from their perverseness and morbid sensibility, plagues to themselves and all around. Among the physical signs may be signalised headache, muscular pain, vertigo, disturbance of digestion, with capriciousness of appetite, and a host of vagaries of sensation, such as complaints of the tightness of dress; of the weight of the atmosphere; of the pain inflicted by combing the hair; of the tightness of corsets, and consequent incessant undressing; of the weight of the shoes; of the denudation of the throat in swallowing food, which is consequently refused; even of currents of air. Such patients are restless, unsettled, incessantly crave change, dislike home, repose, occupation; but, although displaying innumerable manifestations of mental disorder and unhealth, some of which are of great gravity, the malady never seems to shorten life.

N.B.—Stachiomania, as it may be called, may occur at all ages from youth to manhood, but is not infallibly hereditary, even when accompanied by physical conditions; yet remains doubtful whether there be a set of bodily symptoms specially characteristic of each malady; and whether, were such the case, a new element would not be introduced into legal medicine. My observation tends to show that the signs conceived to identify reasoning madness as a distinct species are common to other minor neuroses; and that these indications are compatible with the aspect of health, longevity, and even with the preservation of the logical faculty.

M. Delasiauve chiefly insisted that this class of diseases may originate without any hereditary taint; that physical deformities may suggest emotions which terminate in and are the causes of

insanity, and that many patients were perfectly conscious of the mental confusion or perversion under which they laboured.

M. Billod preferred to designate the physical states enumerated as signs in, but not of, Reasoning Madness; a course which would exclude the error of electing the disease into a pathological Entity resembling General Paralysis, as having bodily and mental symptoms. He conceived that from the physical signs observed during the life of Reasoning Madmen, nothing could be concluded. Such exist and are observed, and seem to claim a pathological signification in the disease under consideration; but, for example, might not the traces of apoplectic cells discovered in the brain of D——, previously mentioned in this discussion, and to which certain symptoms observed during life were attributed, be as deceptive or as erroneously interpreted as those found in the brains of Pinel and Dupuytren. These lesions have no more special signification than in the cases of Pinel and Dupuytren, and may in other cases be accepted as indicating any form of mental alienation. There may be a correlation, but not an exclusive connection between such signs and Reasoning Madness; so that the definition "lesions" in the disease should be substituted for "signs" or "characteristics" drawn from the somatic condition therein observed. The latter designation may be preferable, as idiocy and other forms of degeneration are included in the physical symptomatology described.

M. Lunier conceived that the indications of hereditary predisposition or degeneracy had been confounded with the signs of Reasoning Madness.

[NOTE.—We conceive that among British alienists there would be a general concurrence in the views expressed by M. Billod, that the physical signs insisted upon should be ranked as coincident and not as causative; and that grave suspicions will arise as to whether many of the groups of symptoms, many of the conditions, both physical and psychical, supposed to be characteristic of Folie Raisonnable, might not be referred legitimately to other universally recognised forms of insanity, such as dementia, hypochondriasis, hysteria; to defective or injudicious education; to uncontrolled original propensities; or even to corrupt or criminal motives for which the individual is responsible.—TR.]

ART. IX.—PROBLEMS FOR PATHOLOGISTS.

ALL medical men conversant with the progress of insanity when under observation in public hospitals, all who have lived long with the insane, must have noticed how perfectly compatible grave lesions of the nervous system are with longevity, usefulness, and even enjoyment; and, likewise, how compatible the phenomena of the gravest forms of mental derangement are with the retention and exercise of a large amount of intelligence, even of fancy, and of the acquirements and accomplishments which adorn the sane. It is not my intention at present to embrace these propositions except where they incidentally and indirectly are connected with subjects in which it would appear that both medical science and medical logic are at fault, or have hitherto been set at defiance by the difficulties attending the investigation. It has been assumed, and, I conceive, rightly assumed, that the brain is the organ of the mind, or in some manner connected with the manifestations of mental conditions or faculties; but it has been further assumed, rightly or wrongly I shall not at present say, that in every mental act, and in every phase of consciousness, from the perception of the odour of a flower to the most profound and protracted philosophical or mathematical ratiocination, there is a corresponding structural change in the cerebral matter or its dependencies; that the slightest disturbance, or disease, or suspension in such acts or phases is attended with or caused by a corresponding morbid alteration or destruction of a portion of nervous matter; and, thirdly, that the psychical element of our nature must be material, or a quality, or a condition, or a secretion of matter. Now, before “leaping in the dark” to a conclusion upon so important a hypothesis, it would be prudent for pathologists to attempt some solution of the problems, or, as I might fancifully term them, the Conundrums, involved in the following considerations:—

I. Mania Transitoria is, from the shortness of its duration, perhaps from the rarity of its occurrence, seldom noticed except when defined *ira brevis est furor*, or when accompanied or followed by certain of those frightful tragedies which cast a doubt upon the real nature of this affliction. It has, however, been recognised and described as a distinct form of mental aberration, by psychologists in America, France, and Germany, and upon it the plea of insanity has been founded in criminal cases in the United States.

Illustrations may be found in Esquirol, "*Maladies Mentales*," vol. ii. p. 99, who, in speaking of modifications of mania, designates them as *spontanée*, *momentanée*, and says "There are other monomaniacs who kill by instinctive impulse. They act without consciousness, without delusion, without motives. They destroy by a blind impulse, instantaneously, independent of their volition." In Marc, *De la Folie*, vol. ii. p. 473, under the title "*Mania Transitoire ou Passagère*;" in Dagonet, "*Traité des Maladies Mentales*," under the title "*Monomanie Instinctive sans Delire, Impulsive, Restreinte-oligomanie*," &c.; and in Jarvis, *American Journal of Insanity*, 1869, vol. xxvi. p. 1, who, under the title "*Mania Transitoria*," affords the most ample and reliable account of the disease which we have met with. From him, an Englishman in language, habits of thought, everything but birth, I shall quote certain of the characteristics of this psychose. It is described as a form of mental disorder appearing in healthy persons suddenly, disappearing rapidly, and leaving no trace behind. It has very often been connected with violent and sanguinary deeds which would have consigned responsible agents to the scaffold. Its duration may be for minutes, hours, days, but on recovery there is no recollection whatever of the events which have occurred during the existence of the paroxysm. This gap in time and memory is invariable, whether restoration to consciousness has been effected by or independently of treatment, such as bleeding, &c. The excitement or perversion sometimes eventuates in epilepsy, and has been supposed by Dr. Maudsley to be an analogue or substitute for such a seizure. Remorse may succeed the perpetration of crimes during this condition, but it resembles the penitence of the inebriate, which concerns a fact or facts narrated by others, but of which the actor has no cognisance. Many cases, however, involve no offence against the law or propriety, but are merely marked by extravagance, folly, incoherence, or by a temporary revolution in the feelings and faculties of the patient. These instantaneous changes may recur frequently during life, or subside at once and leave no indication or impression on the strength or stability of the mind. In certain instances delusions have pre-existed, and in others the individuals have belonged to families where the tendency to hereditary mental disease had been demonstrated. Though rare—and many psychologists have treated thousands of lunatics and have not met with a single example of *Mania Transitoria*—yet the industry of Tuke has collected, from various chronicles and countries, about 75 cases. Many years ago I met with two striking illustrations in lads of 14 and 17, of vivid imagination and nervous temperament, but who were at the time in excellent bodily health, and have not manifested, either then

or since, any species of alienation. In one the attack ceased in the course of twelve hours, in the other it continued several days.

What then are the relations between our physical and psychical nature under such circumstances? If the cells in the cortical substance be engorged, or in any way degenerated, in what manner can the cause, or the removal, or the operation of this fugacious state be explained? Is the mental orgasm independent of physical causes, concomitants, or other circumstances?

II. General Paralysis of the Insane may be briefly described as an affection of the cortical substance and of the sensori-motor system, as characterised by paralysis gradually involving all the muscles, and by mental perversion generally evinced by exaltation of ideas, by delusions as to rank, riches, and power, although sometimes ushered in by depression; by modifications of aphasia, as most frequently affecting the male sex and as incurable. Its duration varies from months to many years, but, should death occur during the first stages of development, no lesion has been detectable, but in the second it has been asserted that "persistent spasm of the blood-vessels leads to change in their component elements, especially in the muscular substance." This is obviously a secondary effect, and the primary origin must be sought in that hypothetic nervous irritation which may be either the cause or the consequence of the blood changes. While the post-mortem appearances must differ in accordance with the progress of the disease, and, it may be, in accordance with the general mental condition, whether that be maniacal, melancholic, &c., in conjunction with the special features of ambitious delirium and the delusions which have been specified, the following detail may be accepted as a fair exposition of what has been observed in all the stages, even where death was preceded or produced by convulsive attacks. "Serous infiltration of the cortex of cerebral hemispheres, its state of separation, of bloody injection, its mixture with granular elements, either on the walls of the vessels or on the surface of the large nerve-cells, the state of the injection of the vessels of the white matter, the development of the corpora striata, the presence of molecular granules and collections of small cells in the midst of the grey matter in the same bodies, the dilatation of the vessels of the cerebellum and of the pons, the formation of granular products on the vessels, or in the grey substance of these same regions; finally, the dilatation of the vascular network of the pia mater, and its infiltration, either serous or sero-sanguinolent, with the formation of granular elements." These details have been

copied verbatim from Dr. Edward Long Fox's work on "Pathological Anatomy of the Nervous Centres" (pp. 203-211), as affording a more complete view of the whole subject than could be collected from the monographs from which they are drawn.

Calmeil, accredited the discoverer of this disease in the aspect under which we now know it, regarded it as periencephalitis, and gives a record of forty-five brains examined microscopically, of which the following is an epitome:—"The capillaries are diseased in various ways, abundant extravasations of fibrine are often found; many secondary products are met with, especially in that form of the disease which is complicated with phenomena of an apoplectic or convulsive form."

When the extensive and irremediable ravages here delineated are considered, it is startling to find the following contrast to this supposed continuous downward course of the malady which they represent. Baillarger, the highest living authority in France, is inclined to regard arrestment in the advance of General Paralysis as rarely veritable. When the disease is simple, the paralysis and dementia by which it is characterised may disappear, but if maniacal, melancholic, monomaniacal, these characteristics continue during the remission. He quotes Marcé as affirming that remissions occur when General Paralysis begins with mania, agitation passes into calm, embarrassment of speech diminishes, and ambitious ideas fade away; from endless ideas of greatness, muscular infirmity, debility, and maniacal vehemence, the patients pass as if by enchantment to an almost normal state, renouncing their errors, lowering their pretensions, and recovering their muscular force. When the inevitable and fatal issue of General Paresis was less known, I confess to have been guilty of discharging at least two patients as recovered, in whom all symptoms of General Paralysis and other diseases of the nervous system had entirely disappeared, and who presented the features of robust and rubicund health, but who ultimately succumbed under the malady. It is not necessary to obtrude upon pathologists the perplexities created by the remark of Baillarger in the article above quoted, from the *Annales Medico-Psychologiques*, Mai, 1876, that when General Paralytics die during mania, melancholia, or in their absence, precisely the same structural changes in the brain are found; by Calmeil, that in the same encephalites the morbid manifestations greatly vary; by Dickson that no one would be justified in declaring any brain presented to him to be that of a madman; but I do conceive that they are called upon to prepare answers to the following queries. 1. Are the psychological excitement, exaltation, and delusion, to be regarded as the factors or promoters of the physical degeneration? 2. Are

we entitled to hold that the physical degeneration was stayed, disappeared during the cessation of mental disease, giving place to healthy structure? 3. Are we entitled to hold that the resumption of apparently healthy mental action was compatible and co-existent with persistent structural degeneration?

III. It is not my intention to insist here upon the origin or nature of Lucid Intervals, which, according to Giuslain, amounted to 60 per cent. in the patients which had passed under his notice, as the subject is of too wide a compass. There are, however, occasionally brief periods in the history of Dements, chiefly connected with excitement, during which the long dormant or dead faculties or feelings are awakened, revivify and present a store of memories and a strength of reasoning altogether unexpected, and inconsistent with long-established feebleness and fatuity, and which pass away with the same inexplicable rapidity which mark their development. Dr. Pliny Earle presents the interesting picture of a juvenile Dement, who, during one hour, but no longer, was roused from his apathy and taciturnity, displayed such marvellous humour and joyousness as to excite the fun and frolic of his wondering companions, and then subsided into his former silence and stupidity. Pain has produced a similar resuscitation, and in Dements as well as other lunatics there is sometimes a euthanasia, a wakening or lighting up before death, which it is very difficult to reconcile with chronic disease, prostration, and impending dissolution. With what cerebral condition then can these sudden flashes of restored intellectual light, after a darkness created and maintained for years by the presence of brain-wasting, hypertrophy or consolidation of tissues, connective or otherwise, be identified, it is for the Pathologist to say.

IV. It is not proposed to enlarge upon the spontaneous recoveries from various forms of madness, nor to advert to the phenomena of recovery at all, except where such happens after long periods of mental aberration. Many years ago a patient of my own, who had passed 16 years in deep melancholia, sometimes disturbed by panphobia, and obviously merging into hebetude and dementia, incapacitating her for all occupation, even rational conversation, suddenly gave tokens of increased attention to what was passing around, greater amenity and repose of manner, gradually resumed various feminine works going on around her, and ultimately engaged with alacrity, happiness, and success, in teaching the young; as she had been, before the incursion of depression, a governess. She survived her restoration many years, but suffered from partial paraplegia, acute neuralgia, and ultimately died of what would now be called

embolism. A lady was placed under my care labouring under chronic mania, I think of one year's standing, haughty, vehement, irascible, and with manners so unsocial, and habits so degraded, that her relatives had secluded her in a garret, and pushed her food within the door without visiting her. The usual medical means failed, but she was induced to listen one evening to her national music, and when seen by me next morning, about twelve hours after hearing the ballad, she was perfectly well, and has, so far as I know, remained so since. Dr. Mead mentions a cure as rapid. But there are narratives of entire relief from mental disease after periods even longer than that stated above. Dr. Callender met with a case of recovery after madness had continued 17 years, Pliny Earle relates a similar event after the continuance of insanity for nine years, Dr. Kirkbride knew a cure after eight years' dementia. Dr. Green had under his charge a Baptist minister for 12 years, who, after his convalescence, performed his sacred functions; and a lady, who after 16 years of derangement, was restored to sanity.*

The most recent contribution to this catalogue of memorabilia is contained in the annual report of the Glasgow Lunatic Asylum, 1875, just published, where Dr. Yellowlees relates that a lady labouring under melancholia with delusions for eight years, followed by feeble health and sedentariness, was prevailed upon to take exercise and join the evening amusements, when she gradually regained tranquillity and reason under the genial influence of card playing. Let whist be for ever engrafted upon the tree of moral therapeutics.

It seems fair to inquire from the pathologists where the healthy mind was during the 8, 12, 17 years of its obscuration? What, if psychical action depends upon physical conditions, was that condition which suspended intellect, or embittered life, and what constituted the key, natural or artificial, which opened the prison-house and admitted the rays of light, which in minutes, hours, days, &c., placed the sufferer in a healthy and responsible condition?

V. Every insane community may be divided into the idle, the industrious, the intelligent. The idle are unable or unwilling to engage in occupation. The industrious, though monarchs, millionaires, destitute of a body or human capacities, according to their own belief, and without object, reward, or interest, engage in severe and servile labour. The intelligent, while harbouring grotesque delusions, while incapable of undertaking the most trivial ordinary employments or responsibilities, and whose

* *Transactions of Association of Medical Superintendents of Asylums, U.S.* 1873, pp. 26-36.

liberty would be incompatible with social or domestic order and harmony and with their personal safety, are found to manifest the gentlest sympathies, the highest and most difficult acts of intelligence, and to produce the most exquisite and perfect efforts in art or literature. It is most difficult to conceive how Mind in its unity can be at once healthy and diseased; but it is for the Pathologists to explain how a brain, or portions of it, can subserve to the display of functions or faculties not merely incompatible but contradictory; how an optic thalamus can eliminate at the same time and in the same person, absurd hallucinations and correct conceptions; how granular and fatty degenerated cells can at once obscure conceptions of right and wrong, identity, relation and responsibility, and yet retain the acquirements and refinements of an earlier stage of consciousness, and even contribute to creative acts in mathematics, painting, or poetry?

VI. The majority of medical men engaged in the treatment of the insane have witnessed rapid and inexplicable recoveries, where the aid of medicine had not been sought for, or could not be traced. Others have met with cures so sudden as to appear miraculous. It is a well-worn adage among alienists, that the most unpromising and intractable cases cast doubt and scorn upon prognosis by immediate restoration to sanity. Paroxysmal and intermittent forms of mental disease are not here alluded to; although when the healthy interval extends to a year ("Bucknill and Tuke's Psychological Medicine," p. 306), and where the transition is abrupt, such instances seem to be worthy of a place in the category of the wonderful. At present I have to deal with cases in which the cessation of symptoms of all morbid action is sharp, sudden, almost instantaneous. I have met with examples of such an event in mania, dementia, and hysterical mania. It is even better ascertained that if an attack of pyrexia, fever, &c., supervene during mental disease, sanity is at least temporarily restored. Again, the initiation of such affections may take place without premonition or incubation, generally, but not invariably, from moral causes. To cite the highest and the most recent authority upon this latter point, Voisin, 1876, in his "*Leçons sur les Maladies Mentales*," says: "*Tout en ne niant pas les folies instantanées.*" It would be satisfactory could the pathologists determine whether the hyperæmia, anæmia, with empty canals, enlarged perivascular spaces, miliary aneurisms and dilatations, degeneration of cells, cylindrical axes and connective tissue, all such structural alterations being present in the forms of mental disease indicated, can appear and pass away as if by the wand of magic in a transformation scene?

VII. I do not here introduce the phenomena of double con-

sciousness, or their corresponding physical conditions ; as being too rare and too fugacious for the solvent power of the microscope. But instances do occur in which a total change, catastrophe, cataclysm in the mental constitution, follow important crises which are worthy of consideration. About thirty years ago there came to my knowledge the case of a lady mentioned, I think, by Dr. Abercrombie, in his work on the Brain, who at eighteen married the object of her affections, with the approval of her family. She subsequently fell into a state of stupor and inertia so grave and prolonged that it became necessary to restore her to her original home. There she remained for a long period in a state of complete lethargy or trance-coma, mute and motionless, idealess, although all the natural functions were healthily performed. After a time she began to move her fingers, to open her eyes, to feel pain when pinched, and so forth. Then she became susceptible of and submitted to a re-education, acquiring a knowledge of knitting, music, writing, &c., but exercising these acquisitions in a manner totally dissimilar to that which had formerly characterised her. The crucial point of the narrative, however, is that she became perfectly sane, but that her former life, her former self had been obliterated ; that she had lost all recollection and knowledge of her parents, home, husband, all antecedents to the stupor ; that she learned to love her surroundings both animate and inanimate, but as a new creation, and gathered up knowledge of language, arts, &c., with greater celerity than a child could, but with no assistance, no point of departure from what she had been in her earlier years. But there is a more celebrated though less complete illustration of such an entire revolution of the mental constitution, recorded by Sir James Macintosh, in the words and on the authority of the subject, the Rev. Robert Hall. In the earlier half of his ministerial life this distinguished divine had been endowed with the most powerful and poetic imagination, which shed over his discourses a blaze of fervid and eloquent imagery. He was seized with insanity, and after one or two paroxysms, his recovery was marked, not merely by an incapacity to throw the light yielded by elevated sympathies and sentiments, and by the beauty of language, upon Scriptural truths, but by a logical coldness, precision, and prosaicism, which he could neither subdue nor soften. It would be well could pathologists ascertain whether persons thus afflicted, or changed, continued to think in their second stage of existence by the same brain as during the first, or whether an entire structural renovation had taken place, in which there was a preservation of personal identity, but a loss of personal memory and of characteristic powers and acquisitions?

L. L. D.

A NOTE ON SPECTRAL ILLUSIONS AND OTHER "WARNINGS" IN A CASE OF APOPLEXY; WITH REFERENCE TO THE FATAL ILLNESS OF THE LATE EARL OF EGLINTON.

By W. T. GAIRDNER, M.D.

IN the last number of the *Journal of Psychological Medicine* there is an article by Dr. W. A. F. Browne, a well known and much respected authority, on "Second-sight, or Deuteroscopia." To write a criticism, or commentary, on the article is no part of my present purpose. Indeed, fascinating as the subject is, I should not have been tempted to meddle with it at all but for one of the anecdotes referred to as proving that "modern times and persons whom we might have touched afford similar evidence" to that which Sir Walter Scott had before him when he embodied in immortal fiction the tale of the Bodach-Glas which "appeared to Fergus McIvor on the eve of his capture and execution." The sole object of this note is to deal with the one particular instance here adduced of a very modern "Bodach-Glas;" the facts alleged being susceptible of verification, or the contrary, in a way which might chance to be impossible a few years hence. The real facts and theories which underlie such narratives in general are extremely interesting; but obviously the first point in importance is to have the exact truth, as nearly as it can be had; and the purpose of this communication, therefore, is simply to assist Dr. Browne, and all others who may follow him, in the attempt to carry out scientific enquiries into a dark and difficult subject.

The narrative in question is to be found at p. 29 of part 1, vol. ii. of the new series of this Journal, and is borrowed *verbatim* from a book entitled *Apparitions: a Narrative of Facts*, by the Rev. Bouchier Wrey Saville, M. A. (London: 1874); a volume to which in general terms Dr. Browne expresses his acknowledgments as the source of some considerable portion of his materials. In this particular instance, however, the "facts" have been filtered through at least two other media before reaching Mr. Saville's pages: for it is expressly mentioned that a certain "Henderson," in a certain work passing under the name of "Folk Lore," attributes the story to a certain "Scotch clergyman, *who endorses every particular as authentic and perfectly true.*"

I am not in a position to be able to track this narrative through all the various stages indicated, inasmuch as I have not the slightest idea who is the Scotch clergyman here referred to, or how the story got into the possession of "Henderson;" but

as the compilation of such books as this "Folk Lore," is usually very much of a paste-and-scissors business, and as no names are mentioned in connection with the absolutely *first* source of the information, it is probably not too much to assume that between this first source and the "Scotch elergyman," or between the latter and "Henderson," there may have been several other media of more or less transpareney, consciously or unconsciously imparting a colouring to the narrative. At all events, it is at least charitable to suppose so much; for I am in a position to affirm with the most absolute certainty that the narrative attributed to the "Scotch elergyman," so far from being in "every particuar authentic and perfectly true," is, in the commonest particulars, and in almost every individual detail, totally devoid of the character of a trustworthy report of the facts and circumstances of the late Lord Eglinton's death.

It happens that I am the only survivor of the medical men who saw Lord Eglinton on his death-bed,* and who heard at the time the exact report of what was said to have preceeded his fatal illness. I have also had the advantage of a communication from Mr. Whyte Melville, of Mount Melville, at whose house he died; and I am able, moreover, to compare the incidents of Lord Eglinton's last illness with facts and impressions as to his state of mind and body during the last year, or more, of his life; these particulars resting upon the unpublished, but perfectly exact and carefully considered statements of two friends of the late Lord Eglinton, who were certainly more in his confidence, and more in daily intercourse with him, at the time in question, than any other person or persons whatever, Lady Eglinton alone excepted. I am thus in the possession of means for the discovery of the truth in this case which can rarely be at the disposal of anyone who desires to follow to its sources a tale of death-bed wonders; the actual subject of the narrative being, of course, disqualified from giving evidence as to the facts, unless, indeed, through some other supernatural apparition, which would itself require a like careful and elaborate process of verification.

The facts are certainly both curious and interesting, and in lecturing upon the premonitions of apoplexy I have invariably referred to them (without, however, giving names or local indications) as illustrating the physical basis upon which such quasi-supernatural tales as those of the Banshee, Bodach-Glas, wraiths, and other warning visions have, with great probability, been

* The late Dr. Adamson, of St. Andrews, with his colleague and partner, Dr. Oswald Bell, more recently Professor of Medicine in the University there, were associated with me, more or less, throughout; Dr. Adamson having the more immediate charge, and having communicated to me most of the details as understood at the time. Dr. Begbie, senior, of Edinburgh, was also called in consultation.

founded. It is, therefore, a matter of considerable interest to me as a teacher of medicine to find that a full-blown supernatural tale has actually grown up and got itself published three times over within fifteen years—first as “Folk Lore,” then as “Apparitions, a Narrative of Facts,” and finally as a modern instance of “Deuteroscopia,” in a medical journal. And I have accordingly to thank Dr. Browne for having been the means of bringing under the notice of competent scientific judges what might otherwise have been left to fructify in “Folk Lore,” until the miraculous element had assumed still larger proportions. I believe we have here a typical story, from which the true genesis of many other myths of a like order may be easily inferred.

What is detailed in the published narrative, omitting, for the present, the apparently supernatural occurrence, may be briefly thus contrasted with the actual facts, as known to myself and probably to many others, bearing on the last illness and death of the late Lord Eglinton. I purposely give, though not every word, yet every single incident of an ordinary or easily verifiable kind, related on the authority of the “Scotch clergyman” as being in “every particular authentic and perfectly true.”

1. Lord E. was engaged in playing golf at St. Andrews on the 4th of October 1861. This is incorrect as to date, as will presently appear. It is correct otherwise.

2. “Within a few hours Lord E. was a corpse. He died the same night.” This is as inaccurate as so brief a statement could possibly be. Lord Eglinton was taken suddenly ill on Monday, the 30th of September 1861, and died on Friday, the 4th of October. It was on the former date that he was playing golf as above stated. Five days, therefore, intervened between the incidents referred to as occurring on the links of St. Andrews and his death.

3. Lord E. died “with such suddenness, that he was engaged in handing a candlestick to a lady, who was retiring to her room, when he expired.” This is altogether inaccurate, and indeed purely imaginary. Lord Eglinton expired after nearly four days of insensibility, during which he lay in bed perfectly helpless. He was, indeed, very suddenly taken ill on the evening of the day on which he had been playing golf; but without going into minute details of what must have been a painful scene in a private drawing-room, I may say that I have it on the best authority that Lord Eglinton was himself retiring from the room at the time of his seizure, after saying “Good night” to the company, and had reached the door, walking backwards, and feeling for the handle, in the course of which his manner was observed to be peculiar, and this led to

his being followed into the passage just in time to be prevented from falling to the ground.

Now these details, given on the authority of an eye-witness, would be of no great importance were it not for the clear evidence they afford, that the first source of the tradition ascribed to the "Scotch clergyman" was *not* an eye-witness, and not even a well-informed secondary or hearsay witness. The narrative, which is ushered in with such pretensions to authority and exactitude, is inexact in every particular, and obviously founded on the merest gossip of outsiders, who were utterly misinformed as to dates and circumstances, which any good contemporary newspaper could have supplied, while the colouring imparted to the narrative is such as to make it appear to be in all its details "authentic and perfectly true." Of course I do not blame the unknown "Scotch clergyman" for this. When A tells B, who tells C, who tells D, who tells E, etc. etc., a story which is ultimately printed by a cunning compiler of "Folk Lore," the errors of the tradition are not to be placed to the account of any one of these letters of the alphabet. And in this case we cannot be sure that the "Scotch clergyman" really meant to authenticate the narrative as we have it; I am almost sure, indeed, that no Scotch clergyman was in a position to do so.

The importance of this preliminary investigation as to the more ordinary or credible incidents of the narrative is that, the facts being so, we may almost certainly assume that the apparently supernatural incidents require to be discounted, or severely scrutinised, in proportion to the want of care and good faith shown in the whole structure of the traditional story. We know positively that we have to deal, not with such facts as would stand in a court of justice, but with the flimsiest and loosest of gossip, gathered in all probability from various sources, and at such a distance from the actual facts that even dates had ceased to be, or to appear, of importance. On such authority as this we are required to receive the following:—"Suddenly he stopped in the middle of the game, exclaiming, 'I can play no longer—there is the Bodach-Glas; I have seen it for the third time; something fearful is going to befall me.' Within a few hours Lord Eglinton was a corpse; he died the same night," etc. etc.

We should err, however, if on account of the *à priori* untrustworthiness of the narrative we should treat it as wholly without foundation in its apparently supernatural incidents. The fact is, that Lord Eglinton unquestionably had some kind of spectral illusion, or *deceptio visus*, while playing golf at St. Andrews on the day of his illness. He did not explain

himself very clearly, or in much detail about it, but said to the bystanders on more than one occasion (as I was informed next day), "There's my little old man again"—as if he had become more or less familiar with the object. It is not a part of the story, as I heard it, that he manifested any supernatural awe or terror, or gave expression to any fear of immediate consequences. I am almost as sure as a man can be of anything derived from testimony, that the language attributed to Lord Eglinton above is a pure invention, and one long after the fact. For reasons which I shall state presently, I believe that Lord Eglinton was fully persuaded, long before this, of his approaching end, and that he looked forward to it, as a brave man without superstition or guilty fear will usually do, steadily and unflinchingly, for at least several months. He was not, therefore, in a state of mind to be suddenly terrorised by a Bodach-Glas, or banshee, even had he believed the spectre to be such. But I never heard it said at the time that he so believed it. On the contrary, it is certain that he went home, passed afternoon in society, ate a hearty dinner, and then afterwards entered into conversation about the gold medal that was to be played for next day; rose, however, early, and went to the drawing-room, where he listened with evident appreciation to the singing of Scotch songs, and then retired, to be seized, as stated above, with his fatal illness (apoplexy) just after leaving the drawing-room. Such are the unvarnished facts of the case in so far as they bear on the alleged supernatural occurrence.

How long before this Lord Eglinton had become aware of the premonitory symptoms of disease, and what position he assigned to these spectral illusions among the premonitory symptoms, are questions which must probably remain for ever unanswered. But we have abundant evidence of such premonitory symptoms in other cases of apoplexy and epilepsy, and of their probably depending on physical causes. And in Lord Eglinton's case I am able to supply a missing link, by showing not only that he had formed a very decided opinion that his life was drawing to a close, but that he had expressed this opinion in a very practical form, and entirely without reference to any supernatural or superstitious impressions of warning. I am even in a position to show that his symptoms, more than a year before his death, were such as to suggest to a physician of large experience the probability of apoplexy, and further, that among these symptoms were spectral illusions, not indeed so definite in character as the "little old man" on St. Andrews links, but still such as probably to concur with the other evidence of impaired health and vigour in leading to the fixed impression on Lord Eglinton's mind of impending fatal disease. The following statements

are simply an abridgment of what has been carefully written down for my guidance by one of the two very intimate and confidential friends of Lord Eglinton above referred to.

Lord Eglinton was, as is well known, a man of robust bodily frame, and of a remarkably genial presence, fond of all manly sports, and especially an adept at most of our Scottish games, but never permitting amusements to interfere with his various business engagements, which, up to about two years before his death, had included the public duties of the viceroyalty of Ireland. In that office he did not spare himself, and he is known to have gained the goodwill of all classes, and an almost unbounded popularity. In the autumn of 1860, when residing at home in Ayrshire, he was observed by a few of his more intimate friends to be falling off in vigour of body, but not to such an extent as to attract the notice of casual visitors. At this time, in consequence of representations made by the Countess of Eglinton to my informant, seriously remarking upon the altered health of the Earl and his indisposition (contrary to all his former habits) to take active exercise, he was induced to make a personal visit to all his tenantry in Ayrshire, and in the course of these excursions, thus voluntarily undertaken with a view to his own health, as well as to the gratification of those visited, he spoke frequently and confidentially of his own symptoms, among which the *loss of weight* was the one most present to his own mind as indicating derangement of health. He spoke of it as gradual and progressive, and said that it was annoying, for at his time of life most men became heavier, and he could not account for it by anything in connection with his diet or regimen. He then explained that he had also had peculiar sensations connected with his *sight*, and my informant remembers distinctly the statement, that when out shooting some days before, he had on several occasions taken the gun from his shoulder without drawing the trigger, because, he said, "I could not cover the object." On being asked what it was that prevented him from taking aim, he replied that "a little black spot seemed now and then to cross his vision, and he could not fire."

A fact not stated at the time in connection with these symptoms, but which became known to my informant after Lord Eglinton's death, is that even for some time before this he had been consulting Dr. Macfarlane, of Glasgow, late Professor of Practice of Physic in the University, for symptoms which the latter considered to be "indicative of apoplectic tendencies." Dr. Macfarlane, in stating this circumstance in conversation with my informant, added that he had recommended his lordship to take regular exercise, and to dine an

hour or an hour and a half earlier, but that he was met with the answer, "Oh, doctor, we cannot give up our eight o'clock dinners."

I have thus established, beyond all question, the fact that for more than a year before Lord Eglinton's death he had been failing in health, had experienced disorders in vision amounting to a kind of spectral illusion, and had been considered by a physician of the largest experience the subject of "apoplectic tendencies." Had Lord Eglinton been a superstitious man, he was therefore in the very condition to be, even at this time, visited by a "Bodach-Glas," or what he might have construed as a warning vision of some kind. But in the very end of 1860 a great calamity befel him, and shortly after this his confidential communications to the two friends I have referred to assumed a new character, with a distinctly increased solemnity of anticipation of the approaching close of his own life.

Lord Eglinton was twice married. His second wife was the Lady Adela Capel. This lady was delivered of a child in Edinburgh on the 6th or 7th of December 1860, and all went well for three weeks. At the end of that time there was a sudden and unexpected illness, which terminated fatally on the 31st of December. It is quite certain that this event caused a very severe mental shock to Lord Eglinton, and almost from the very day of the death of the Countess he used expressions intimating that "his heart was broken," and that it would not be long before his own life would come to a close. Indeed, on the very day after the funeral of his wife, he gave most minute instructions to one of the confidential friends alluded to above as regards his own funeral, and, what is still more striking, repeated these instructions in detail, pointing out on the spot the very place where he wished to be laid, and exacting a solemn pledge to carry out his wishes from the other friend, a man at least twenty years older than himself, and at the time by no means in vigorous health. I have a most vivid impression derived from this last gentleman (now dead) as to the persistency with which Lord Eglinton pressed upon him personally the duty of seeing him buried in the exact place pointed out by him, and when told that, according to all ordinary calculations, he (Lord Eglinton) ought to be the survivor of the two, he said, "No, my career is ended; *you* will soon see me buried there."

With all this there was no hint of any overstrained imaginative terror or superstitious feeling, and no allusion, even in the most casual way, to any supernatural warning or visitation. The works referred to by Dr. Browne contain a very circumstantial narrative of a dream which, it is said, warned Lord Eglinton beforehand of the death of the Countess, and even of the very

time when it was to take place, making him cry out with terror. Dr. Browne does not quote this story, though it is very plausibly told, and is quite a fitting pendant to the tale of the "Bodach-Glas." For the purposes of "Folk Lore" it is quite as good a story as the other, though it does not assume to be attested in every particular by a "Scotch clergyman." Upon this subject my informant writes: "From the day of the Countess's death, and for many weeks afterwards, I was constantly with Lord Eglinton, and had many private conversations with him on the subject of his great loss, but I never heard the slightest allusion to a dream or foreboding of any kind." Is it at all probable, or even possible, that Lord Eglinton should have been for weeks in constant communication with a most intimate and confidential friend, speaking of the facts connected with the death of the Countess, and should never have dropped a hint about a supernatural warning, if the latter story had been true? Yet the narrative appears side by side with the other in Mr. Saville's book, and equally with it assumes to be derived from authentic sources, or at least claims, by its very form and wording, the credit due to a statement of indisputed fact.

One more illustration I am able to give at once of the strongly-realised conception that Lord Eglinton had formed of the probability or certainty of his own premature death, and of the freedom of that conception from all superstitious fears, or even traces of supernatural visitation. At the instance of the elder of the two confidential friends I have mentioned, and chiefly with a view to the occupation of his leisure hours during the last year of his life, Lord Eglinton had agreed to a proposal to place on record some of his own personal recollections, his friend doing the same; and each reading over to the other, from time to time, the successive portions of the two narratives as they were completed. Both these autobiographical productions still exist, and I believe that the interchange of confidences contained in them was a source of much pleasure and satisfaction to their respective authors, although I have often heard the elder and survivor of the two say that he believed Lord Eglinton did not intend his memoir to be preserved, or in any way to be made use of, after his death; regarding it as merely a private or confidential record for his own use, and that of his most intimate friends. I am not in a position, of course, to quote or otherwise refer in detail to this document; but I believe it is true that the last words in it contain an affecting allusion to the death of his wife nine months before, conveying, as simply as possible, the sense that in this world he had no more to do, but to prepare for a meeting in the next. Had there been any supernatural manifestation or ghostly

terror present to the mind of Lord Eglinton, shortly before his own death, or had his previous experience contained such an incident as that of the second story referred to above, it was here that we might have expected to find it. For I am informed, on the same authority as I have previously so often referred to, that "the 29th September 1860 was Lord Eglinton's birthday. It was a Sunday, and I believe I am right in saying that on that day he wrote the last sentence which is found in his autobiography." On the next day, the 30th September, as we have seen, he was on the links at St. Andrews playing golf, and it was then that he experienced the premonitory symptoms which led up to a fit of apoplexy the same night.

I have endeavoured to present these occurrences in such a way as may be of service in the investigation of truth, and at the same time avoid ministering to a morbid appetite for the marvellous, or a mere love of gossip. The surviving friends of the late Lord Eglinton will not regret to know that an attempt has been made to distinguish between fact and fiction in the current traditions; although had not these been published in a scientific journal, it is more than probable that the attempt would never have been made.

THE PSYCHOLOGICAL ASPECT OF THE BRAVO CASE.

THE circumstances connected with this extraordinary case have given rise to much comment and conjecture in medical circles. The theories which have from time to time been propounded, and the numerous explanations that have been offered, are peculiar as well as numerous.

It is not our intention to enter into a discussion upon the facts incidental to the trial, as they are too well known to need any recapitulation at our hands. The point at issue is, whether the deceased Mr. Bravo *committed suicide whilst in an unsound state of mind*. Public opinion from the very onset determined not to accept this theory, let the evidence be ever so strong, or substantiated by convincing facts.

The deceased was a man of excitable temperament, liable to sudden outbursts of passion without any adequate cause. He was morbidly jealous; his mind absorbed in one train of thought relative to certain events previous to his marriage, upon which we need not dwell in detail. The evidence went to prove his frequent liability to these furious outbreaks and fits of morbid suspicion, which on every opportunity he vented on his wife, especially when he was in the vicinity of a certain house, the sight of which stirred up the angry passions rankling in his breast, and which he was unable to throw off in consequence of the firm grasp they had obtained. The deceased might have passed through life without any harm accruing, had not there been a strong predisposing cause which rendered his mind unable to battle against his thoughts. This predisposing cause alluded to was a taint of hereditary insanity, prevalent in his family, but which carried no weight at the inquest. We are much surprised that, with the facts so prominently elicited, the jury should have entirely abandoned this consideration. A jury consisting of tradesmen of Balham could not be expected to know that in

cases of insanity there generally exist two distinct causes conducive to mental aberration—an exciting, and a predisposing cause. Both these existed, the exciting cause being the one predominant thought previously mentioned; the predisposing, the hereditary taint. We are strongly of opinion that in an enquiry of such gravity, and involving such important issues, that the Coroner should have been assisted by a *medical* as well as a *legal assessor*. The question at issue was whether the case was one of murder or suicide. If the latter verdict had been given, we may presume that that verdict would have been “Suicide whilst in an unsound state of mind,” and therefore, with such a presumption, which must have existed in the mind of the Coroner, he should have insisted upon having the assistance of a physician learned and experienced in mental disorders. We do not, however, know what his full powers are, but we are led to believe that had he expressed a wish to this effect it would have been granted, especially as the Crown was desirous of sifting the matter to the uttermost. We give *in extenso* an excellent and able letter, written by Dr. Edgar Sheppard, of Colney Hatch, to the *Times*, and the views as expressed by the *Medical Times and Gazette*, together with the views of the Editor of this journal as stated in the *Daily News*.

Dr. Sheppard writes: “The ‘Bravo Case,’ as far as public proceedings of an incriminating kind are concerned, is probably over, but the ‘Balham Mystery’ remains a mystery still. These are the two verbal formulæ which for some weeks have attracted so much notice, and under the heads of which there has been so large a revelation of what is unsavoury in our social life. I venture to submit that there is a psychological aspect of this ‘mystery’ which has not been sufficiently contemplated, and which the unsatisfactory verdict of the Coroner’s jury makes it more imperative to consider. And I ask you to let me place this aspect before the public in the *Times*.”

“I call the finding of the jury unsatisfactory, because it attests their incapacity to deal in a proper and manly spirit with the evidence submitted to them. They fix an indelible stigma upon certain persons, and at the same time affirm that there is nothing of a kind sufficiently conclusive to lead to absolute identification of the guilty. Murder, they say, has been committed by some one; and while by implication they attach the

guilt to one or more of an unfortunate trio, they do not officially charge it upon either or upon all. It is idle to say that this is not what the jury really mean when they affirm that Mr. Bravo has not come to his untimely end by suicide or by misadventure, but by wilful murder. Certainly it may be questioned whether, in a moral point of view, such a verdict admits of justification. Regarded as an intellectual problem, the position is absolutely untenable. For if there is any proof of 'wilfulness,' there should necessarily be proof of the source from which that wilfulness arose, and the desperate deed should be positively charged upon one or more persons. The jury are thus thrust upon the horns of a dilemma from which there is no escape. To my thinking, therefore, the verdict is both illogical and cowardly in the extreme.

"What I am chiefly concerned with, however, is the theory of suicide in this very sad but interesting case. Misadventure, the jury say, is clearly out of the question. And so, also, of suicide. Neither of these will furnish a solution of the 'mystery.' But has the theory of suicide been at all adequately studied from a psychological point of view? People have really been driven from the contemplation of suicide; 1st, because (they say) there is not a sufficient motive for it; 2nd, because (they say) there has been a sufficient motive for murder; 3rd, because a dying man (confessedly having no religious belief) declared that he had no knowledge of the cause of his approaching death, and had only rubbed his gums with laudanum and chloroform. It should be added that there is conflicting testimony as to whether this was or was not a 'corrected' declaration.

"Now, is a higher value to be attached to the credibility of this witness, even though dying, than to that of the lady who affirms that Mr. Bravo had previously said to her, 'I've taken poison for Dr. Gully; don't tell Florence?' Comparing their antecedents, as far as they can be gathered from the history that has been unfolded to us, I know to which of these two my perceptive faculties incline me. But the Coroner's jury think otherwise.

"Let us enquire as to the 'motive' for suicide in this particular case. Now, the word motive, as conventionally used, would seem to imply something involving the exercise of judg-

ment and reflection. It cannot, therefore, be an equivalent for the mental attitude of a violent and impulsive man, in circumstances of intense and fiery provocation. If Mr. Bravo committed suicide he did it on the spur of the moment. That spur may have led him to obtain poison at an earlier date than the day on which he took it, or he may have procured it a few hours before the commission of the fearful act. That spur may have goaded him into the frenzied thought of an escape from tumultuous suffering by a mode commonly regarded as cowardly, and generally associated with the irresponsibility of disease. There is much to support the view of temporary irresponsibility here. It is in evidence that Mr. Bravo was a spoiled and wayward child, that his passions were strong, that his anger was of a brief but desperate kind. Fired by an almost fiendish jealousy, he could strike the dearest object of his affection, and then prostrate himself in tears of contrition. The extremes of mental exaltation and depression were equally conditioned by his emotional temperament. I do not see how any one can read the history of this unhappy man and not see, growing day by day in intensity, the fire which at last consumed him in one of the clumsiest of suicidal acts. Clearly, the 'green-eyed monster' was dominating his whole nature. He had threatened on several occasions to leave the home that had been created for him; he was constantly referring, in the most ungenerous manner, to an earlier period of his wife's career, which had a parallel in his own, but to which that wife made no corresponding allusion. He was oppressed also by a morbid conviction of Mrs. Bravo's extravagance, and to a growing habit with respect to her alcoholic tendencies. Matters culminated on that fatal day when he drove into London for the last time, and passed the house of the man whose image was ever pursuing him. He tries to work off the steam of his highly-charged system by a Turkish bath, and subsequently a gallop in which the horse got the better of the man, and he returned home in a state of complete exasperation. Better put out this brief candle and make an end to this distracting misery! Little, in his recklessness, did he think of the agony-producing agent which he had selected to serve his desperate purpose; but he soon discovered it, flies to laudanum and chloroform, calls for hot water, blurts out to his wife's friend impulsively what he had done; urges her to secrecy, and, hoping

she would preserve it, set himself defiantly to meet a fate which he knew he had brought upon himself, and which he had not the manly courage to avow openly in the calmer moments which followed. When urged, for obvious reasons, to a confession of guilt, he denied it in terms, the solemnity of which has been disputed, but as to the evasive persistency of which there has been no question.

“Is it possible (say those who disbelieve the theory of suicide) that a dying man should go out into the untried future with a lie in his mouth, when he might make his exodus with less imperilling of his condition there by a simple acknowledgment which would render all so easy both for himself and others? Well, that depends upon the religious belief of the dying man, and on the mental effect produced by a catastrophe from which he is assured there is no escape. If the jealousy which had so fired him, and had culminated in this suicidal act, still dominated him, he would be reluctant to admit suicide, but would satisfy his revenge in the chance of implicating in a charge of murder the man whose mental presence was ever being obtruded on him. There would be a tragic completeness about such an issue which would feed with some satisfaction a morbid psychological condition with which alienist physicians are not unfamiliar. And hundreds of men die yearly, and will continue to die, with lies on their lips, to the end of time.

“There is an alternative. The dying man might have been ashamed to admit (though it is in evidence that he impulsively blurted out the admission, with a charge of secrecy to its recipient) in calmer moments an act of cowardice of which he was now ashamed; or he may have wished to spare the woman he had so passionately adored the pain of reflecting that she had been the means of driving him to an act which might rob her future of all consolation.

“Having disposed of this point, we now come to two all-important questions:—1. Is it conceivable that if ‘misadventure’ was responsible for this tragedy, the question would not have been asked by the poisoned subject, ‘How did this misadventure occur?’ Or, knowing himself how it had occurred, would he not at once have alluded to it in terms and in a manner which could not be mistaken? 2. Is it conceivable—is it not, indeed, contrary to all the instincts of human nature—that

a man should believe himself to be poisoned by someone dear or hateful to him, and make no charge of incrimination?—never make a single allusion to those who might have had a hand in despatching him by a deed of transcendent infamy?—never make use of the word ‘murder,’ or give any verbal intimation that any other than himself was responsible for the abrupt termination of this young life? There can be no instance on record of such a metaphysical anomaly. Our knowledge of the human mind forbids its possibility. It could not have occurred to the meekest and mildest Christian that ever lived. With all his faults, Mr. Bravo was not base enough to charge others with his death. Why? Because he knew that the sin lay at his own door. And he died commending his wife to the care of his and her friends and relations.

“It is worthy of note that nearly all suicides which are the result of sudden and violent impulse are exceedingly clumsy in their execution, because done without thought and deliberation. The suicides of calmer moments (and there are such) have a character for completeness about them which is foreign to those momentarily conceived and carried out.

“The fact is not without great significance as bearing upon the psychological aspect of this case which I have endeavoured to elucidate—that it is in evidence that Mr. Bravo had a deaf and dumb sister, and another, of feeble capacity, in a convent. This clearly establishes a family instability of nerve element, which loves to show its capriciousness—here in weakness, there in waywardness, and elsewhere, it may be, in undue and fretful intellectuality.

“I have been anxious to put forward this view of what has been termed a ‘mystery,’ for the public mind has been completely possessed by the theory of murder, without, as it seems to me, any adequate reason. Nor will the ungenerous verdict of the Coroner’s jury do much to allay the unsatisfactory feeling which has existed concerning this domestic tragedy—this terrible revelation of our social life. As I view the matter, I believe the verdict to be utterly unwarranted; and I am borne to the irresistible conclusion that Mr. Bravo met his death by his own hands.”

The Editor of this journal writes: “The letter of Dr. Edgar Sheppard elucidates very concisely and clearly the true facts connected with the ‘Balham mystery,’ and tends materially to throw

a true light upon it. A verdict of 'wilful murder,' without one tittle of evidence to justify such a decision, is of rare occurrence in England, but in this case such a verdict was arrived at. It is admitted by psychologists that suicidal insanity is generally an impulsive act, whilst homicidal is premeditated. This important point was entirely lost sight of in the consideration of the case, and one strange argument urged against a verdict of suicide was that Mr. Bravo had met some friends the day previously, who reported his general demeanour, conduct, and appearance as those of a sane man. This evidence, to all who have studied the various phases of insanity, is worthless; let me draw your readers' attention as a proof of this to the sad suicide of the Bishop of Meath, which occurred during the hearing of the case, as one instance of impulsive insanity. Many such instances could be cited to refute the erroneous conclusions which might be arrived at from the evidence of such witnesses. Again, a most important point connected with the case was the predisposition which existed to mental deficiency stated in the evidence and alluded to by Dr. Sheppard. With this strong hereditary taint acting as a predisposing cause, and the facts cognisant to him of the relations between Mrs. Bravo and Dr. Gully—which, according to the evidence, were uppermost in his mind the day before—acting as an exciting cause, we are not surprised at the result. We here, then, have a predisposing and an exciting cause to insanity. The general conduct of the deceased upon many occasions was not consistent with the behaviour of a sane man; the violent fits of temper—impulsive, no doubt—the mind absorbed by the one predominant thought, and being unable to shake it off, no doubt led to the impulsive act. These are important facts which favour strongly a verdict of suicide, together with the other evidence previously alluded to.

"Dr. Sheppard has ably treated the case in a psychological point of view, and it is unnecessary for me to go over the same ground. I wish, however, to endorse the views expressed by him, that the verdict was quite unjustifiable, and, in my opinion, not based upon evidence; whereas, if the decision of the jury had been that of suicide, the history of the case and the evidence deduced would have justified such a verdict."

The *Medical Times and Gazette* says as follows:—

“English society is very humane—far too humane to allow the vivisection of a cat; but it loves sensation, and has found it of late in the vivisection of Mrs. Bravo,—in the utter remorseless dissection of all her inmost thoughts and cherished frailties. It has been circulating the most atrocious statements respecting the three persons whose lives and characters were involved in the ‘Balham Mystery,’ and has been dangling the hangman’s rope before them, as the cat plays with a mouse.

“We propose here only to consider how far the theory is tenable that the unhappy Mr. Charles Bravo committed suicide, and shall avoid any details not bearing upon this theory, although, of course, this involves the guilt or innocence of the persons who, if he did not kill himself, are suspected of having killed him.

“Florence Campbell, a beautiful and accomplished girl of nineteen, married Captain Ricardo in 1864. After three years of happiness he fell into habits of drunkenness; delirium and ill-conduct followed; and at last the couple were separated. He went to Cologne, accompanied by some woman, and there he died in April 1871. His wife had not been under the same roof with him since November 1870. This disposes of the current slander that the vomitings which followed Captain Ricardo’s debauches were the effects of antimony administered by his wife, and that the captain’s corpse had been ‘had up’ for analysis.

“During the latter part of her married life, Mrs. Ricardo visited Malvern, and there met her evil genius in Dr. Gully. She had, in fact, known him from childhood, liked him for his kindness, and admired his intellectual gifts. He, on his part, combining the character of paternal and professional protector and adviser, of “guide, philosopher, and friend,” seems, after the husband’s death, to have inspired the widow with what her mother justly called an ‘infatuation.’ The result was, that down to last October they were almost constantly in each other’s society: they travelled together, he lived near her and had a key of the garden gate; in fact, this young and handsome woman gave up the society of her family and her good name for the sake of a man older than her father. She would, doubtless, have married him had not Dr. Gully’s aged wife been in the way.

“But in October 1875 Mrs. Ricardo seems to have felt her estrangement from the members of her own family, and determined to give up the society of Dr. Gully in order to be admitted again into the family circle. About the same time she made the acquaintance of a young barrister, Mr. C. Bravo. He seems to have become enamoured of herself and her fortune, and, after about six weeks’ acquaintance, married her. It appears that he knew of the intimacy with Dr. Gully, but was not deterred from the match.

“Four months only of married life followed, and then a catastrophe. On April 18, Mr. C. Bravo came home to dinner, sat a short time after dinner with his wife and her companion, Mrs. Cox, and before half-past nine went to bed, according to his habit. His wife, who was scarcely recovered from a miscarriage, also retired early, was undressed with the help of Mrs. Cox, and went to bed in another room at about the same time. Very soon there was an alarm that Mr. Bravo was ill; he appeared at the door of his chamber, calling loudly for hot water. Mrs. Cox and the housemaid came to him, and found him standing by an open window, out of which he had vomited on to some leads below, and he soon became unconscious. It is not our purpose to give a history of what followed—how Drs. Moore and Harrison were sent for, next Mr. Royes Bell and Dr. G. Johnson, and Sir W. Gull on the following day; how the practitioners who came first found the patient almost dying of collapse and heart failure; how, when consciousness returned, they recognised the symptoms of poisoning by some metallic irritant, the dose of which had been sufficient to produce at first an almost fatal collapse; and how the patient lingered in great agony, but with a clear intellect, till death occurred in about sixty hours. Antimony was found in the vomit and in the fluids of the corpse, and was without doubt the cause of death.

“Then the question came, How was the antimony taken? Was it taken by the deceased as a means of suicide? Was it given him by others with murderous intent? or was it swallowed by accident, mistake, or misadventure? The Coroner’s jury, after a lengthened investigation, have decided that the antimony was given with murderous intent by some person or persons unknown, and have emphatically negatived the theory of

suicide; but considering the character of the proceedings, and the evidence which may have influenced their judgment, it will be no mark of disrespect to them if we say that the theory of suicide has a good deal to be said for it.

"Now, forasmuch as suicide is an act depending on the moral condition of the person committing it, it will be worth while to sift the evidence given as to the moral and mental character of the unhappy deceased: and in so doing we discover two pictures of the same man—one drawn as he appeared in public or in the society of his acquaintance; the other as he was known to his family and at home,—each picture true so far as it goes, but each requiring to be combined with the other before it is taken as evidence of so grave a matter as the probability or not of suicide.

"According, then, to his outside acquaintance, and what may be called his public, he was an intellectual, bright, active, pushing, ambitious man; determined to rise in his profession; very frank and outspoken; very happy; proud of his marriage with a rich, accomplished, and beautiful widow; high-spirited, courageous; with plenty of money,—the whole summed up in the evidence of Mr. Joseph Bravo, his stepfather, who swore that, 'knowing him intimately, he could aver that he was a man not likely to commit suicide.' Mr. Royes Bell, a relation and intimate friend, described him as 'full of fun,' truthful, and 'outspoken to a fault,' and said, 'from my knowledge of him, I can say he was not a man likely to commit suicide.' Mr. M·Calmont (who described himself as a barrister) swore that deceased was quite happy about his wife, and spoke affectionately of her; 'he was the last man to commit suicide.' Miss Bell, 'from intimate knowledge,' would swear that 'deceased was not a likely man to commit suicide.' Mr. Hope knew the deceased as a high-spirited and cheery person, and 'decidedly a man not likely to commit suicide.' Mr. Willoughby and Mr. Atkinson, barristers, deposed to the same effect in the same words; and so did Mrs. Campbell, the unhappy mother of the unhappy widow.

"Now, it never seems to have occurred to these gentlemen that the value of an opinion depends on the knowledge and experience of the person who gives it; and we may ask what knowledge had any one of them of the mental condition of a

person likely to kill himself? The number of suicides is very small; how many had these barristers seen? Had they ever seen any? And if not, what is the value of their judgment that deceased was the last person likely to destroy himself? But all this worthless testimony is disposed of by three words of common-sense evidence from blunt, honest Henry Smith, who, though he reiterated the formula, 'I do not think from my knowledge of him that he was likely to commit suicide,' yet added with perfect fairness that it was difficult to say what frame of mind indicated suicide; and that of two friends of his who had done so, one was of the jolliest, the other always miserable. There is, in fact, no outward demeanour that excludes the possibility of suicide.

"But, as we have said, there is a reverse to this flattering picture of Mr. C. Bravo's character. Mr. Henry Smith describes him as of a morbidly excitable nature; apt to lose his temper from trivial causes—in argument, for example,—'from causes which should disturb no sane man.' Of his two sisters, one is deaf and dumb; the other with a nervous system so feeble as not to allow of her going into society. The same witness (H. Smith), like Mr. Royes Bell, deposed that deceased was a 'truthful' man, 'far too communicative and outspoken.' Thus we are led to suppose that deceased kept nothing secret from intimate friends; yet H. Smith, though intimate, was not told by deceased that Mrs. Bravo took too much wine. Mr. McCalmont, the gushing barrister, who swore that Mr. Bravo was not a man likely to commit suicide, and that he spoke cheerfully and affectionately of his wife, yet knew nothing of the Gully affair, and confessed that he should not have thought deceased likely to marry a woman whose name had been mixed up with such a scandal.

"In fact, if we look a little under the very surface, we shall see evidence that this cheery, genial, good-tempered fellow, glowing with happiness, and outspoken to a fault, was at bottom a very poor devil—a *miserable*, as the French say; a spoiled child, unable to act on the manly doctrine that a man should leave his father and mother and cleave to his wife; quarrelling with his wife, and striking her; threatening to leave the house and go back to his mother; always harping upon Dr. Gully; and annoyed by dastardly anonymous letters

reviling his wife as Dr. Gully's mistress, which he believed to emanate from the doctor. He found that his wife was not only compromised by Gully (which he did not seem to care for, so long as his mother did not know it), but that she took too much wine. And then as to her money, with which he hoped to get on at the bar, and to get into Parliament; if he was not embarrassed, he was not flush of cash; was obliged to borrow from his step-father, and had just parted from a female 'establishment' at Maidenhead.

"Now, with these things before us, we may ask why such a man should *not* commit suicide? Rousseau says that self-respect is the only thing that makes life bearable. Could Bravo respect himself? Truly the wise man said, 'The heart knoweth his own bitterness, and a stranger cannot intermeddle with his joy.' How could his briefless brethren, who heard him brag of his marriage, and saw him calculating how to save £300 a year by discharging his wife's companion, and were invited down to Balham to lawn tennis and champagne, know that all this outward show was hollow as the apples of Sodom?

"We have evidence that there had been a kind of squabble in the morning whilst he was driving to town with his wife on the fatal 18th; that at and before dinner he was dissatisfied with everything, and appeared to Rowe, the butler, ill and out of sorts, and said (according to Rowe) that he should never go to Worthing—to which place Mrs. Cox, the companion, had been that morning to take a house. Keeber, the housemaid, said that he complained on the 17th of being very cross, and on the 18th looked very queer when going to bed; his wife described him as looking ill and angry at dinner, with his face working. All these things betoken a disturbed and unhappy state of mind. If we want additional evidence that something was evidently amiss, we find it in a question which Mr. Gorst, Q.C., who appeared on behalf of the Crown, allowed himself (and was allowed by the Coroner without rebuke) to put to the witness Rowe, the butler. Rowe had described the deceased's manner and looks before and at dinner (when, we should observe in passing, he was also complaining of stiffness and soreness from riding a runaway horse), and Mr. Gorst asks, 'Now, tell us, do you think deceased was poisoned before dinner?'

“A more unfair question can hardly be conceived, inasmuch as it involves a statement that deceased was ‘poisoned’ by some one—which was the thing to be determined, not to be assumed. But this is a very mild specimen of the interrogatories practised at this (so-called) legal enquiry. Anyhow, it shows that the Crown was ready to admit that the deceased was ill before dinner, though it involves the monstrous notion that a man would eat a good dinner with twenty-five grains of tartar emetic in his stomach.

“As further evidence that the theory of suicide, though enveloped in prodigious difficulties, is yet worth considering, we may adduce the fact that deceased when seized called out for hot water. Now, we will venture to say that this is unusual, unless the patient is conscious of having swallowed something noxious; and secondly, the profound collapse which must have come from something swallowed very quickly before. It is only a killing dose that would produce such collapse, and it would not be long about it.

“We purposely omit in this place more than a passing reference to what Mrs. Cox affirmed—viz. that the deceased said he had taken poison, and repeated this again and again; and to the intricate history of what deceased admitted or not, and the conversations with Dr. G. Johnson and Sir William Gull. If the deceased said what Mrs. Cox avers, it tells in favour of suicide; if not, there is but one more added to the intricacies of this unhappy business.

“If the deceased did not kill himself, the hypothesis occurs that he might have been poisoned by his wife, or by Mrs. Cox, or Dr. Gully, or by any two, or all three of them conjointly.

“Let us say first, as regards the wife, that, after all due allowance for the prejudice arising from her past conduct, nothing can equal the malignant—the almost more than feminine—ingenuity with which every jot and tittle of her actions, even the most irrelevant or insignificant, was raked up and turned against her. As for her husband’s mother, she disapproved the match, and we can only wish that she had dissuaded her son from it. She is said to have meddled with their household affairs, and the kind of feeling towards her daughter-in-law was well expressed by that happy and most delicate feminine phrase, ‘She hoped to like her in time.’

This is quite intelligible and natural ; but Mr. Joseph Bravo, who tells it to us, was not above petty insinuations, as, for instance, that ‘dinner was served as usual’ (at The Priory during deceased’s illness) *in several courses*, but that *he* remained upstairs with his son. A man can know but little of the ways of well-to-do-families who supposes that in a house full of relations the servants will not provide and send up dinner as usual, spite of the illness, without waiting to be told. The unhappy widow is placed in this strange dilemma. If Bravo was cheerful and happy in his married life, there was no reason why he should have poisoned himself ; *ergo*, she did it. On the other hand, if the married life was unhappy, she poisoned him to get rid of him. There was not a vestige of mercy or consideration for this woman ; and if the inquisitors have failed to discover the cause of Mr. Bravo’s death, they have anyhow been successful in torturing his widow. They proved that she dyed her hair, though they did not prove that she poisoned her husband. But as for evidence, what need of it?—they relied on blasting her character, so that anything should be believed of her. What a parody there was of legal proceedings, outdoing anything we hear of foreign questionings, is evident from one specimen. An old nurse, Amelia Bushel, was made to depose that ‘she did not know any reason why deceased should not have told everything to Mr. Royes Bell’! The same statement is found in the reports of the evidence of Miss Bell. How were these people to have known what they were asked? and what did it matter whether they did or not?

“Spite of a protracted public investigation, and the most unscrupulous public inquisition which has been known in England since the Stuarts, nothing has been adduced against the widow—neither time, place, opportunity, material, nor motive for the crime.

“As for Mrs. Cox, considering that she was known to be under the deepest obligations to the Bravo family, who had treated her with the greatest generosity, and that she was on the point of starting to see a well-to-do relative in Jamaica, it is difficult to discover a motive, and equally an opportunity. No means of administration by any person save the deceased can be easily conceived. The dinner was eaten by all three persons. The deceased was a judge of wine, according to Rowe,

and the presence of tartar emetic in the burgundy he drank seems incredible. As for the water in his bedroom, of which he usually drank at bedtime, that could not have been tampered with, according to the evidence of the housemaid, and of Drs. Moore and Harrison. However the poison was taken, not many minutes passed before it took effect.

“As for Dr. Gully, the fact that the Crown thought it worth while to prove the purchase of antimony by his coachman in 1869, shows how worthless is any direct evidence against him. It seems to be forgotten that, supposing a conspiracy existed to murder Bravo, it could have been but of very short duration. Is it likely that Gully carried antimony with him whilst a favoured lover, in order to poison any man who should marry Mrs. Bravo?

“On the whole, there is such a conflict of evidence, such deliberate perjury on one side or the other, such motiveless, useless, and gratuitously devilish wickedness, that the question between murder and suicide remains insoluble. We should prefer the theory of accidental poisoning—a thing not impossible or unknown in the history of antimony; and if this be objected to because mere speculation, so, be it remembered, is it with the other two suppositions. Of course, suspicion falls naturally on one of the three persons named. But, as in a chess problem, what seems an obvious move at first sight seldom leads to a solution.

“Lastly, our object is not to screen the guilty, but to protest against proceedings which are a disgrace to jurisprudence, which pervert justice at its source, and which, if repeated, would be as terrible to the innocent as to the guilty. And we must in fairness point out a series of indiscretions which justly gave a point to suspicion. That Mrs. Bravo should consult Dr. Gully; that she should receive medicine, or, in fact, hold any communication with him after her marriage; that Mrs. Cox should also repeatedly converse and consult with him, and be the bearer of medicine and ‘treatments,’ are acts of indiscretion which deserve the severest reprobation. But what shall we say of Dr. Gully? How was he justified in prescribing for Mrs. Bravo in April? Above all, why did he get medicine (laurel-water) and send it in a roundabout way to Mrs. Bravo—an act quite unnecessary, unusual, and derogatory in any

physician, and fraught with the worst suspicions to him? Moreover, as a matter of professional conduct, why did he, being her lover, treat Mrs. Ricardo for miscarriage, alone and without another practitioner in consultation? Why did he prescribe for her in 1874, for the restoration of the uterine function, medicines not homœopathic, but such as are discredited with the power of doing away with the fruit of illicit love? No man, however high and pure he may be, can commit such indiscretions without risk."

REVIEWS.

On Uncontrollable Impulse. By T. CLAYE SHAW, M.D., M.R.C.P.

In this paper the writer very energetically and ably takes up the cudgels in defence of those unhappy persons who commit a crime under some unconquerable impulse. He maintains that in many instances an unfortunate person has been condemned to death in our courts of law for an offence for which he was at the time morally irresponsible. Impulses are subjective and objective. How often we see numbers of people, acting upon subjectively evoked ideas, rush into print, and write pages of matter, and only satisfied after expending much explosive energy. See again the "mad" speculator; the vows made under religious fervour. Savages not only appease themselves by blood, but tender it to their gods. Impulses leading to suicide we condone, returning a verdict of "unsound mind"; but those leading to murder we hesitate to acknowledge as deserving any amenity in treatment. A case is recorded of a man, *at. 40*, who was admitted to the Leavesden Asylum as imbecile. He had no delusions; but confessed to an unconquerable feeling to "do something." At times he would smash the windows, always *being very pale* before the act. One morning he seized a knife and inflicted a small wound upon his throat. Just before this act he *turned very pale*, and the impulse ceased immediately after its commission. No doubt in this case there is some disease of the brain, but no indication of its locality—no paralysis, no defined pain, no muscular convulsion. If, on the first occurrence of the impulse, the man had committed a murder, he would assuredly have been hanged. Now that the impulse is shown to be recurrent, there would be no hesitation in excusing him. The difficulty is that, whilst an act of destructive impulse in a person already in an asylum, or who has formerly been under certificate, is condoned, a similar act done by a person whose sanity has never been disputed, is visited by the extreme penalty of the law. A great step will be gained if the judges can be made to believe in the existence of such a thing as uncontrollable impulse. Dr. Claye Shaw has worked out his subject in a highly interesting and instructive manner; and we quite think with him, that more importance should be attached to this matter of impulse as regards the exhibition of leniency in trials for murder.

On the Education and Training of the Feeble in Mind. By J. LANGDON DOWN, M.D. Lond., Fellow of the Royal College of Physicians of London; Physician to and Lecturer on Clinical Medicine

at the London Hospital; Physician to the Normansfield Training Institution, &c.; formerly Lecturer on Medicine, Materia Medica, and Comparative Anatomy at the London Hospital, and Physician to the Earlswood Asylum. London: Lewis, 136 Gower Street.

From this interesting pamphlet we learn that the largest proportion of idiocy is to be found amongst the lower orders, where the struggle for existence is frequently desperate, and the unhappy victims in consequence almost entirely neglected. The first thing to be done must be to rescue the child from a *solitary* life, and surround him or her by influences calculated to render existence joyous. Great improvement may be obtained by a happy combination of treatment—*medical, physical, moral and intellectual*.

The *medical* should form the basis of all treatment having reference to what is known of hygiene, physiology, chemistry, and therapeutics.

The highest possible health is the great desideratum. Many *racial* types, such as Mongolian imbeciles, lose considerable intellectual energy in the winter. Morbid anatomy tells us that, in addition to grave defects in the cerebral mass, we may often find a symmetry of central nervous ganglia and pallor of vesicular neurine. Our dietary, therefore, must contain a fair supply of nitrogenous elements, and at the same time be rich in oleaginous and phosphatic substances. The daily use of the sponge and other baths is of paramount importance, especially when we bear in mind the peculiar exhalation so common from the skin of imbeciles. The residence should be on gravel soil, surrounded by well made walks, in order that no opportunity of daily outdoor exercise should be lost.

As regards *physical* training, the attenuated muscles should be carefully and fully exercised, to obviate the simple automatic movement so common to the imbecile.

The *moral* education is of great moment. He must learn obedience; must understand that right is productive of pleasure, wrong followed by the reverse. Corporal punishment should be strictly prohibited. The tact of the teacher will be called into play. A study of the peculiarities of the patients will in most cases reveal a ready access to his moral control.

The *intellectual* training will have reference to a cultivation of the senses. The qualities, form, and relation of objects should be taught by the sense of touch; colour, size, and shape by the sense of sight; the varieties of sound by the ear. Nothing must be left to the imagination. The patient must be taught habits of neatness. The defective speech is best overcome by a well-arranged plan of tongue gymnastics. Varied amusement should be furnished, especially theatrical representations which are not only amusing but educational.

We quite concur in the opinions so aptly afforded by Dr. Down, and we think that were only the work of caring for the *idiot* poor undertaken in the same way as it is for the *lunatic* poor a great step would be taken in the right direction.

Epilepsy: its Medical and Moral Treatment and Cure By FREDERICK GOODCHILD, M.D., late Physician to the Warwick Dispensary; late House Surgeon, Coventry and Warwickshire Hospital; and Author of *The Mineral Waters of Leamington; their Medicinal Properties and Uses, &c., &c.* London: J. & A. Churchill, New Burlington Street, 1876.

Our author commences by giving a concise summary of all the known leading symptoms of this terrible malady in the suddenness of the attack, the foaming saliva often tinged with blood, the "cry," the "aura epileptica." From his own experience we learn that there are two classes of epileptics—first, those who become morose, and make themselves as disagreeable as possible; second, those of a vivacious disposition, who become mischievous, and even dangerous. The time of life is open to considerable variation. There are the epileptiform seizures of infants; and we find the disease present at the age of five to puberty, and so on to thirty or forty years. The causes giving rise to the disease are centric and eccentric; as instances of the latter are worms, dentition, and other local irritations in children, and in the adult the tapeworm, uterine irritation, &c.

The centric causes may be said to be peculiar formation of the head, ossific particles in dura mater, and development of tumours.

Epilepsy may be hysterical or feigned, or produced by fright. In these cases recovery is almost certain.

The eventual effect of the attack greatly varies. Sleep is generally the immediate effect, consciousness returning in some cases speedily, in others the reverse. Sometimes there is slight paralysis. Mental power, vivacity and intelligence may decline, or insane delusions may arise, frequently causing suicidal tendency.

The habits and characteristics of those subject to the complaint are unmistakable. They are careless, artful and designing, bite the nails, given to self-abuse. The pupil is generally dilated, the pulse small and feeble. The writer is of opinion that the patient should not be held during the paroxysms, since this measure frequently aggravates the convulsive movements. As to medical treatment, if the case be eccentric, remove the irritating cause; should the secretions be suppressed or vitiated, restore them to a healthy condition. If menstruation be at fault, a course of pil. aloes c. myrrh. c ferri sulph. will often produce the desired result. If venereal taint be present, as nodes, etc., iodide and bromide of potassium and the mercurial vapour bath may prove efficacious. In the centric forms the sheet anchor is bromide of potassium, administered regularly with ext. lupuli or lettuce. Small doses are of no use. Commence with ten or twelve grains three times a day of the bromide, and increase the dose at intervals when pushed. The only unpleasantness is slight coryza with sneezing. In many cases cod-liver oil is a valuable adjunct.

This careful little work is brought to a conclusion by some exceedingly useful remarks upon the moral treatment of the disease; and some interesting cases of recovery are quoted, showing how useful the force of example becomes when judiciously brought to bear upon those afflicted with the malady.

Considerations on the Cures in Insanity. By GEORGE H. SAVAGE, M.D., Assistant Medical Officer Bethlehem Royal Hospital.

In this article the basis of the statistics is formed by the annual returns of Bethlehem Royal Hospital during ten years, from 1865 to 1874 inclusive. We are told that cure may be gradual or sudden, simply progressive or vibratory—a case may pass from depression to exaltation, or *vice versâ*. When there are alternations of excitement and melancholy, it is dangerous if the periods become longer and longer at each attack. In women, if the periods coincide with menstruation, chronic insanity is to be feared. During the ten years, 852 male and 1,222 female patients were admitted, making a total of 2,074. In that time 367 male and 717 female patients were discharged cured, making a total of cures of 1,084. This is 43 per cent. of cures on the male admissions, and 58·67 on the female admissions. Cases of illuſional insanity are unfavourable. Nearly all cases of epileptic insanity are unfavourable, and all cases of progressive general paralysis end fatally sooner or later.

Cases get well in much larger proportion if sent to an asylum early. The time for cure is early, and if past may be past for ever. Amongst the unfavourable complications of insanity may be classed the following:—Epilepsy, loss of power over the bladder, apoplectic symptoms, hæmorrhœa auris, and paralysis. A very hopeless condition is one in which the hands and feet are congested and blue, and the superficial vessels distinct. As a rule, thin, wiry, dry hair is more constant in the chronic than in the acute cases, and points to smaller chances of cure.

It is an evil sign when a patient becomes fat and well favoured, but gains nothing mentally.

With regard to the influence of age on prognosis, as a rule, young cases get well more rapidly than older ones; but any form of mental disease coming on before puberty is very dangerous. Sex and the social state must, of course, be taken into consideration; but more experience seems necessary before we can say how far their influence may be relied on.

Every asylum has traditional sayings. Among these may be quoted as follows:—Patients who make and wear rings of paper or thread are seldom cured. The ring is often mistaken for a real token. Patients who are constantly “wishing you good morning” are generally hopeless.

Amongst the most rapid and unsatisfactory cases of cures are those in which drink has played the chief part. In cases dependent upon uterine irregularity the prognosis is by no means easy; since, in many cases, the same cause that produces insanity produces amenorrhœa.

In phthisis the prognosis frequently varies inversely with the disease. In regard to syphilis, in connection with insanity, the prognosis is rather that of the syphilis than of the mental state.

Dr. Savage has compiled a most able and instructive pamphlet, and has treated the subject in a thoroughly exhaustive manner. We have great pleasure in recommending the work to our readers, who will be amply rewarded by its perusal.

PSYCHOLOGICAL RETROSPECT.



VERY little has transpired during the past half year in connection with psychological medicine. The important subject of legislation for dipsomaniacs has again been brought prominently forward by a deputation consisting of the leading men in the profession, who waited upon the Home Secretary to impress upon him the great importance of legislation for habitual drunkards. We cannot but regret that the House of Commons still ignores adopting any measures for the protection of the victims of the growing evil and curse of this our nineteenth century. Many motions involving little importance have occupied much attention of Parliament, to the exclusion of matters of more considerable moment. Many murders and suicides have been committed by lunatics at large, and one extraordinary suicide was perpetrated by a prisoner awaiting his trial in Newgate. The *modus operandi* adopted in this case was peculiar, and we give the facts below of the circumstances connected with the case:—

EXTRAORDINARY SUICIDE IN NEWGATE.—An enquiry took place on May 2nd, before Mr. W. J. Payne, the coroner for the City of London, in the vestry of the gaol of Newgate, into the circumstances under which George Johnstone, aged 47, a prisoner awaiting his trial in the prison, who destroyed himself on Sunday night in a most extraordinary manner, came by his death.—Mr. Sydney Roberts Smith deposed that he was governor of the gaol of Newgate, and the prisoner was delivered into his charge on the 29th of March, having been committed from the Southwark Police Court with several other prisoners upon numerous charges of fraud and obtaining goods by false pretences. He saw the prisoner on Sunday afternoon, between four and five o'clock, and he then appeared as usual, and made no complaint. He was locked up in his cell at six o'clock with the other prisoners, and, as was the custom with prisoners before trial, no alteration was made in his clothing, and as he appeared perfectly cheerful and not at all desponding, no suspicion was entertained that he contemplated any act of violence. The prisoners slept in hammocks, supported by two straps at the head and foot, attached to four rings in the wall, and there was an inspection hole, and a watchman patrolled the prison during the night, whose duty it was to look in occasionally and see that all was right. On Monday morning, about one o'clock, in consequence of information he received from the chief warder, he went to the prisoner's cell, and found him lying on his back underneath his hammock, quite dead and cold. The mode by which he destroyed himself

was this. He had taken one of the straps from the foot of his hammock and placed it round his neck, and then, having previously folded up one of his blankets and placed it underneath the hammock, he laid himself down and passed a piece of wax-end through one of the holes of the strap. He then fastened the wax-end to one of his braces, and attached the other end of the brace to the ring at the head of the hammock, and then laid himself down, the upper part of his body being about 18 inches from the ground, the strap being perfectly loose in the front, the only pressure being upon the sides.—In answer to questions put by the Coroner, Mr. Smith said that the deceased did not appear to have any dread of his approaching trial, and, on the contrary, in the course of a conversation he had with him last Thursday, he expressed his belief that he should get off, and had considerable confidence as to the result.—A Juryman enquired how the deceased got possession of the wax-end.—Mr. Smith said that the deceased was by trade a shoemaker, and he had been employed in the prison in mending straps, and might have secreted the piece of wax-end that was the means of causing his death.—Mr. Robert Mapperson, the chief warder of the prison, said that on Saturday the deceased wrote a letter to his brother-in-law, making arrangements for his approaching trial, and he never gave the slightest indication of an intention to commit any act of violence.—Dr. Gibson, the medical officer of the prison, said he saw the deceased immediately after the discovery, and he was quite dead and cold, and rigidity had set in, and he believed he had been dead for several hours. He saw him every day while he was in the gaol, and at one time he complained of his back, and witness ordered him a fomentation and some aperient medicine, and he appeared to be all right. The manner in which the death was occasioned was quite unique; the strap was quite loose, but the pressure on the sides no doubt stopped the circulation of blood in the vessels of the neck, and thus caused suffocation, and the death was no doubt quite easy, as the deceased did not appear to have made the slightest struggle.—The Wife of the deceased, who was present during the enquiry, was summoned as a witness, and she stated that her husband had repeatedly complained of his head, and when he was at large she was in the habit of fomenting it.—The Coroner, in summing up, observed that it was certainly a remarkable case of suicide, and the only question was whether it was committed under such circumstances as to amount to an act of self murder.—The Jury, after a short deliberation, returned a verdict that the deceased destroyed himself while in a state of temporary insanity.

The following suicide by a boy is reported :—

SUICIDE BY A BOY.—Mr. W. Carter held an inquest at Camberwell on the body of Charles Russell, aged 14, who drowned himself in the canal at Camberwell. The boy had latterly been in the habit of spending the whole of his money in gambling, and on the Saturday, after receiving 8s., his weekly salary, he lost it all at tossing. Ashamed to meet his parents, he went to the towing-path of the canal and drowned himself. The jury returned a verdict of "Suicide while of unsound mind," and expressed a hope that the police would do their utmost to stop street gambling.

SUICIDE OF A FOREIGN GENTLEMAN.—Mr. William J. Payne, the coroner for the City of London, held an enquiry at the Board Room, Thavies Inn, relative to the death of Victor Valdenaire, a Prussian gentleman, who was found floating in the River Thames, near Temple Pier.—Both eyes were discoloured, and his skull was fractured.—Mr. William Heath said he was a barrister. The deceased was a personal friend, and an agent in England to his father, a wine brewer. He was a Rhenish Prussian. The deceased was

highly cultivated. On Thursday before the suicide the deceased called upon him, but he did not see him then. He (witness) called at deceased's residence, and deceased told him that he had just recovered from an attack of illness. On Sunday deceased dined with witness and his family, and he appeared quite cheerful. Deceased left him about eleven o'clock, and said he would call and dine with him on Wednesday. On Tuesday morning he received the following letter:

"I dare not address you thus, though the act I am on the point of committing will make me the execration to everybody. It is not the result of insanity, though I shall be glad if it be thought such. Now I implore you to keep the tidings as long as possible from my poor parents, or if they must be sent immediately, do so to Mr. Vichoff, co-director Vichoff, in Trèves. I have written to him about it. I hope the money I leave behind will pay the first necessary advances. I have left my things all unpacked in order to avoid suspicion. I do not know whether I can ask you to have them looked to, as perhaps you may think it a shame to be brought in connection with a suicide. Also, in this case, I am so very much indebted to you for your kindness. I feel it the deeper, as I was very miserable the last few days. You may think it doubly strange that I should have the courage before having well commenced; yet it is not also madness. Farewell. I conjure you not to write direct to my parents.

"VICTOR VALDENAIRE."

—The Jury returned a verdict of "Temporary Insanity."

This is a well-marked instance of a suicide in which no premonitory symptoms had been observed.

MYSTERIOUS SUICIDE.—Mr. Carter held an inquest at the Union Tavern, Vassall Road, Brixton, concerning the death of Mr. J. T. Hewes, aged 78, an independent gentleman, residing at No. 92 Camberwell New Road, who shot himself, leaving on the mantelshelf of his room a memorandum stating what he had done.—Dr. Edward Pinder, of Camberwell Green, deposed that he found deceased's brains on the stock of a gun and about the room, and the whole of the front of the head was shot away. From the position of the gun he must have lowered the trigger with his foot, and the discharge had borne away the whole of the skull, and caused instant death.—Mrs. Box, housekeeper to the deceased, and Miss Pim, who had lived with him for several years, stated that of late he had been restless, and expressed a fear, which they regarded as a delusion, that some one was coming to the house to arrest him for committing forgery. Upon this evidence the coroner was about to sum up, when some dispute took place between two solicitors who represented various persons related to the deceased. One of them wished to adduce further evidence, and called Mr. Joseph Hewes, a nephew to the deceased, who stated that about a fortnight ago he saw his uncle, and threatened to take proceedings against him in reference to the false registration of the birth of a child in 1842 or 1843. He also made reference to the forgery by his uncle of a receipt, for the presentation of which witness suffered two years' imprisonment. In reply to these observations his uncle threatened to blow out his own brains.—The Coroner having summed up at considerable length, the Jury, after deliberating for half an hour, returned a verdict of "Suicide whilst of unsound mind."

A sad instance of friends refusing to recognise the mental condition.

DANGEROUS LUNATIC AT LARGE.—*Attempt to Commit Murder and Suicide in the Borough.*—A desperate attempt at wife murder and subsequent

suicide was made on April 11th by a man named Worcester, aged 35, a furrier, living at No. 4 Collier's Rents, Church Street, Borough. It seems that early in the morning loud screams were heard by the other inmates of the house. A young woman living on the ground floor, recognising Mrs. Worcester's voice, ran up the stairs. She was horrified to see Mr. Worcester holding the bedroom door, and flourishing in his right hand a small pocket-knife. His throat was cut across about five inches in length, and blood was pouring copiously from the wound. He said, "It's all right; I'm murdering my wife, so she won't trouble me any more." He then staggered towards the girl, who went for a policeman. Worcester was discovered in the back yard holding his throat under a tap. In the bedroom on the first floor front was found Mrs. Worcester, sitting on the side of the bed, her throat dreadfully cut, and her cheek and mouth cut open. Blood was streaming from her wounds. Further examination revealed another wound on the left shoulder, and her hands and arms were fearfully cut and jagged. The unfortunate man, it appears, has been for more than a year past out of his mind, and had been confined seven months in Brookwood Asylum, from which he was discharged a few weeks back. Nearly all the people in the neighbourhood were in constant fear of him on account of his strange manner lately. He purchased the knife on Saturday, and on Sunday afternoon his father saw him in the kitchen carefully sharpening it. His wife was warned to be careful of him, but she said she had no fear of him. When sane he was a good father and kind husband. Six small children are left in the house depending on such little support as the neighbours can give.

The prisoner was brought up for examination on the 14th of May at Southwark Police Court, charged with attempting his wife's life and his own. The wife, on being sworn, said the prisoner worked for Mr. Jacobs. On Monday night, the 10th of April, they went to bed as usual and on very friendly terms. Between seven and eight the following morning she was roused from her sleep by a cut on her shoulder near the neck, and she then saw her husband with a sharp knife in his hand leaning over her. She immediately jumped out of bed and fell on the floor. He then stabbed her on the other side of the neck. Witness called out, "Spare my life for the sake of the children." He was then standing by her side, and as she was getting up he struck her on the mouth. She roused all her strength and seized hold of him, and, after a severe struggle, succeeded in getting the knife from him, and then she nearly fainted. Mr. Benson asked her why she struggled to get the knife from him. She replied that he had cut his own throat then and was bleeding frightfully. He said to her, "Never mind, old girl. I'll have your life as well, and we'll both die together." He then left the room. In answer to Mr. Benson she said she had been married to the prisoner eight years, and they had six children. He was a good husband and a kind father. On the 1st of August last he was sent to an asylum from that court, and returned home about seven weeks ago. Mr. Benson asked the prisoner whether he understood what his wife had stated. After looking at him for a moment he said that he did, but he wanted to know why Thomas Morris wished to take away his life. The wife here informed his worship that Thomas Morris was her brother-in-law, and had done nothing whatever to excite him. Mr. Benson remanded the prisoner, directing his immediate removal to the infirmary in Horsemonger Lane Gaol.

SUICIDE IN IMITATION OF THE SULTAN.—A retired warrant officer of the Navy, named Charles Burch, committed suicide at Devonport, in a manner similar to that said to have been adopted by the late Sultan of Turkey.

About noon one of his children heard him groaning, and upon being called by him went to his room, where she found him in bed, which was saturated with blood. He asked for water, which she gave him, and then ran for assistance. Returning shortly afterwards she found him lying on the floor quite dead. It was then discovered that the unfortunate man had opened an artery of the upper part of his arm and had bled to death. The deceased lost his wife about eighteen months ago and had been in a desponding state ever since; he leaves four children. It is stated that he had been reading the papers pretty much of late, and it is thought that the statement as to how the Sultan had committed suicide induced him to adopt a similar method.

This case illustrates an act of imitation in a lunatic as a means of destroying himself. We have had others of a similar nature brought under our observation, in which opening the veins in the arm similar to that adopted by the Sultan had been followed.

EXCITING CHASE AFTER A LUNATIC.—An extraordinary affair happened in the City. A sorter in the General Post Office, named Barton, having performed his usual duties, went into the lavatory, and, upon reappearing, was noticed to be covered with blood. His fellow sorters, believing that he had been making an attempt to commit suicide, conveyed him to St. Bartholomew's Hospital. However, whilst he was waiting his turn in the surgery, he took advantage of a moment when the backs of the officials were turned, and ran into the street. Making his way into the Metropolitan Meat Market, he was stopped by two policemen, but he broke away from them, and escaped altogether for a time. A few minutes afterwards the inmates of the house 22 Red Lion Street, Clerkenwell, were alarmed by some one running hastily upstairs, and it was found that Barton was going to the top floor, the front room of which he entered. Barton seized a knife which was upon a table, when the landlord of the house providentially came into the room and wrested it from the madman, who then ran to the window, threw it open, and attempted to leap out. He would have succeeded but for the intrepidity of Mr. Jacobee, who seized Barton's legs as he was falling and held him tightly, calling for help meanwhile. A man living opposite, seeing the struggle, hastened to the rescue, and the lunatic was ultimately secured, taken to a surgery, and thence conveyed to the workhouse infirmary.

ATTEMPTED SUICIDE.—Henry Nicholls, telegraph engineer, of No. 23 Moreton Terrace, Pimlico, was charged on remand with attempting to commit suicide by stabbing himself in the throat with a razor.—Sir John Heron Maxwell, one of the Middlesex magistrates, was present on the bench in the interests of the prisoner, who had moved in respectable society.—It appeared from the evidence that on the morning of the 25th of May, the police were called to the house and found that a doctor was in attendance on the prisoner, who had left the following note, written in pencil, in his room:—"The government have taken away my profession and brought me and my wife to beggary, and so I commit suicide."—Prisoner having expressed his unqualified regret at what had occurred, which had been attributed to the effect of sunstroke in India, was allowed to be discharged on the promise that he should be taken care of.

The condition of the bones in insane patients having recently attracted much public attention, we have great pleasure in quoting the following interesting letter which appeared in the *British Medical Journal* :—

“DISEASE OF THE BONES IN THE INSANE.

“Sir,—You will, I trust, allow me to observe, in reference to your interesting and instructive comments on the case of the late Mr. F. W. Wimberley, in the *Journal* of this day, that the peculiar liability of the bones of the insane to disease, and consequently to fracture, ‘even when no extraordinary violence is used,’ has been long known. You have written thus: ‘Numerous observations on the subject have been made in recent years.’ Certainly to Drs. Clouston, Rogers, Brown, Sankey, and others, are due the credit of teaching, in 1870, that the osseous system of the insane is especially liable to undergo certain chemical changes, ‘approaching that observed in osteomalacia.’ Much credit is due also to Dr. Morselli, of Florence, for his article entitled ‘Fractures of the Ribs, and a Peculiar Form of Osteomalacia in the Insane.’ Let me add, however, that long years before, or anterior to either one of the several gentlemen named in your editorial of August 19th, 1876, I had written thus, in 1857: ‘One word more; osteomalacia may be confined to one or more bones, or even to a portion only of the same bone. In the examination of patients who have died insane—inmates of the Middlesex Asylums at Hanwell and Colney Hatch—I have met with six examples of this affection of the skeleton: the greater number of the patients alluded to were afflicted with general paralysis. An interesting fact this, and one which bears me out in the views here taken of both osteomalacia and of this specific form of paralysis so common to the alienated.’ (See my *Ganglionic Nervous System*, chap. iii. ‘Pathology,’ p. 265.) It was in 1842 that I detected, at the Hanwell Asylum, the existence of osteomalacia in those dying insane. Furthermore, in the *Medical Times*, No. 170, vol. vii. p. 195, *et seq.* (1842), is seen recorded by me a highly interesting example of the co-existence of osteomalacia and insanity in a female patient who died under my care at Hanwell, in whom six spontaneous fractures of the long bones—femur, humerus, and so on—were found *post mortem*. In this case I have described the skeleton as ‘converted, in great part, into a dark semi-calcareous grumous matter.’

“Under the circumstances, then, you will, I trust, afford me this opportunity to make a prior claim—one of no less than twenty-eight years’ standing—to the recognition of a ‘condition of the bones of the insane,’ of so much importance both to the jurist and pathologist.—I am, sir, your obedient servant,

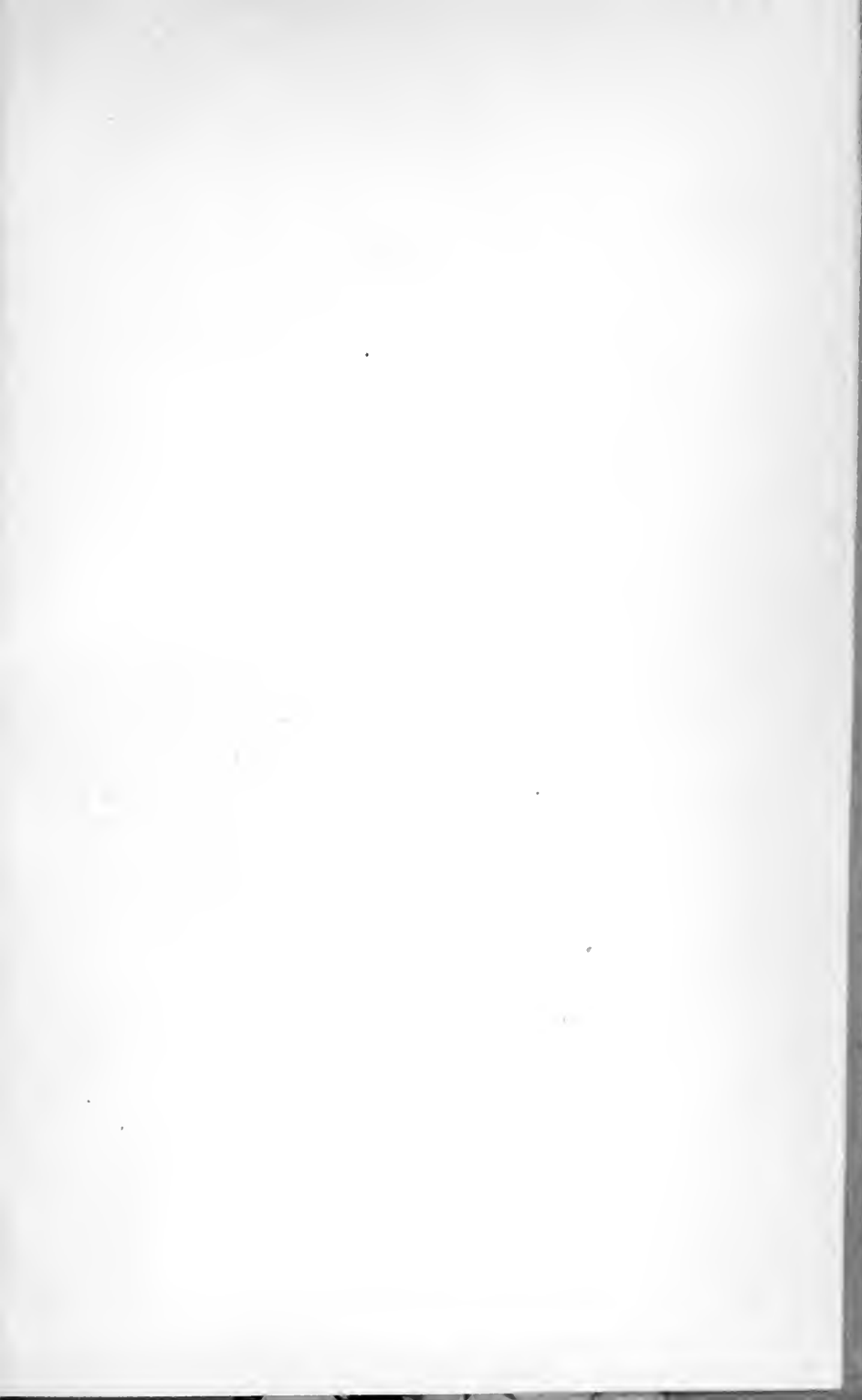
“JAMES GEORGE DAVEY, M.D., M.R.C.P. Lond., etc.

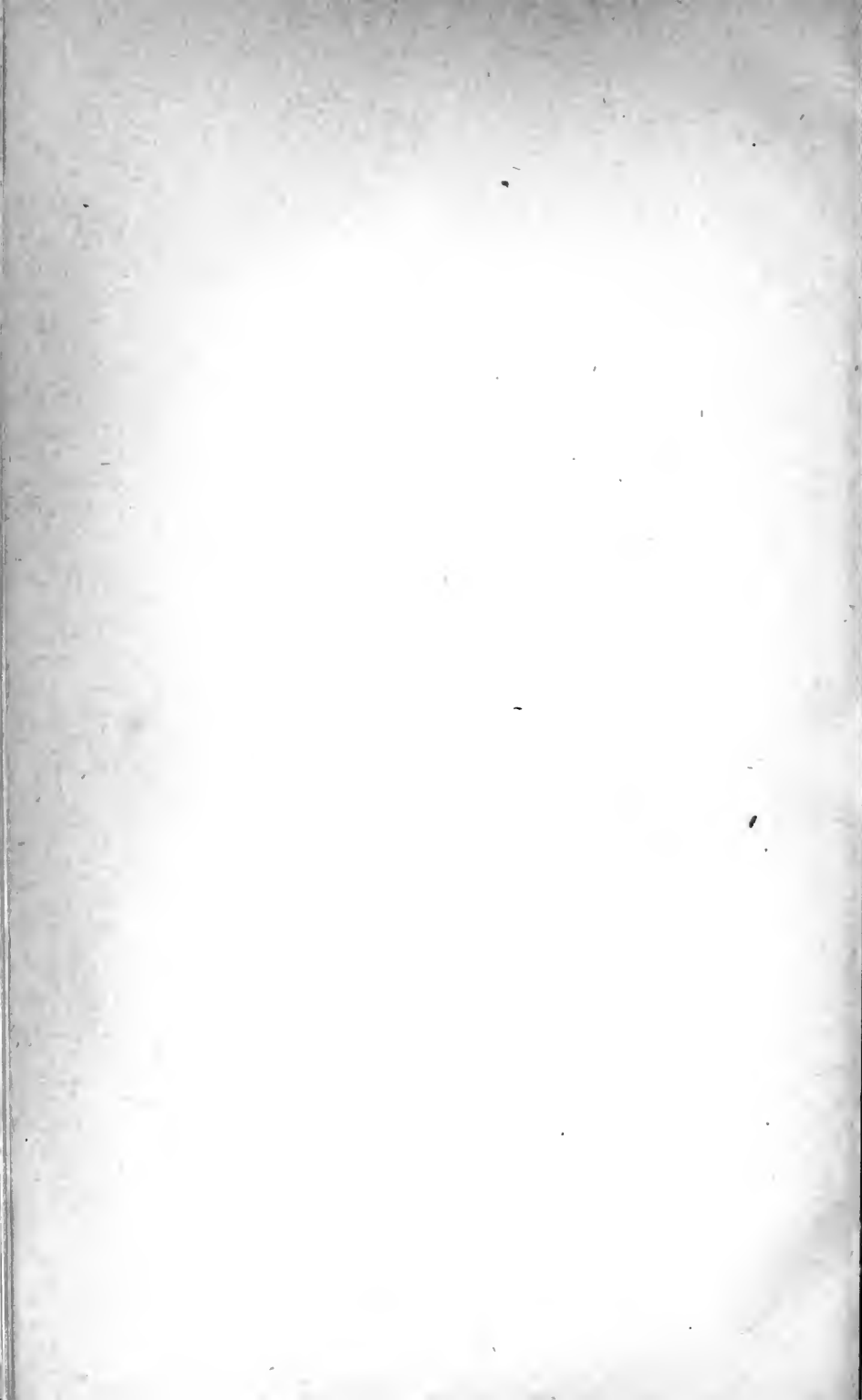
“4 Redland Park Villas, Bristol, August 19th, 1876.”

APPOINTMENTS.

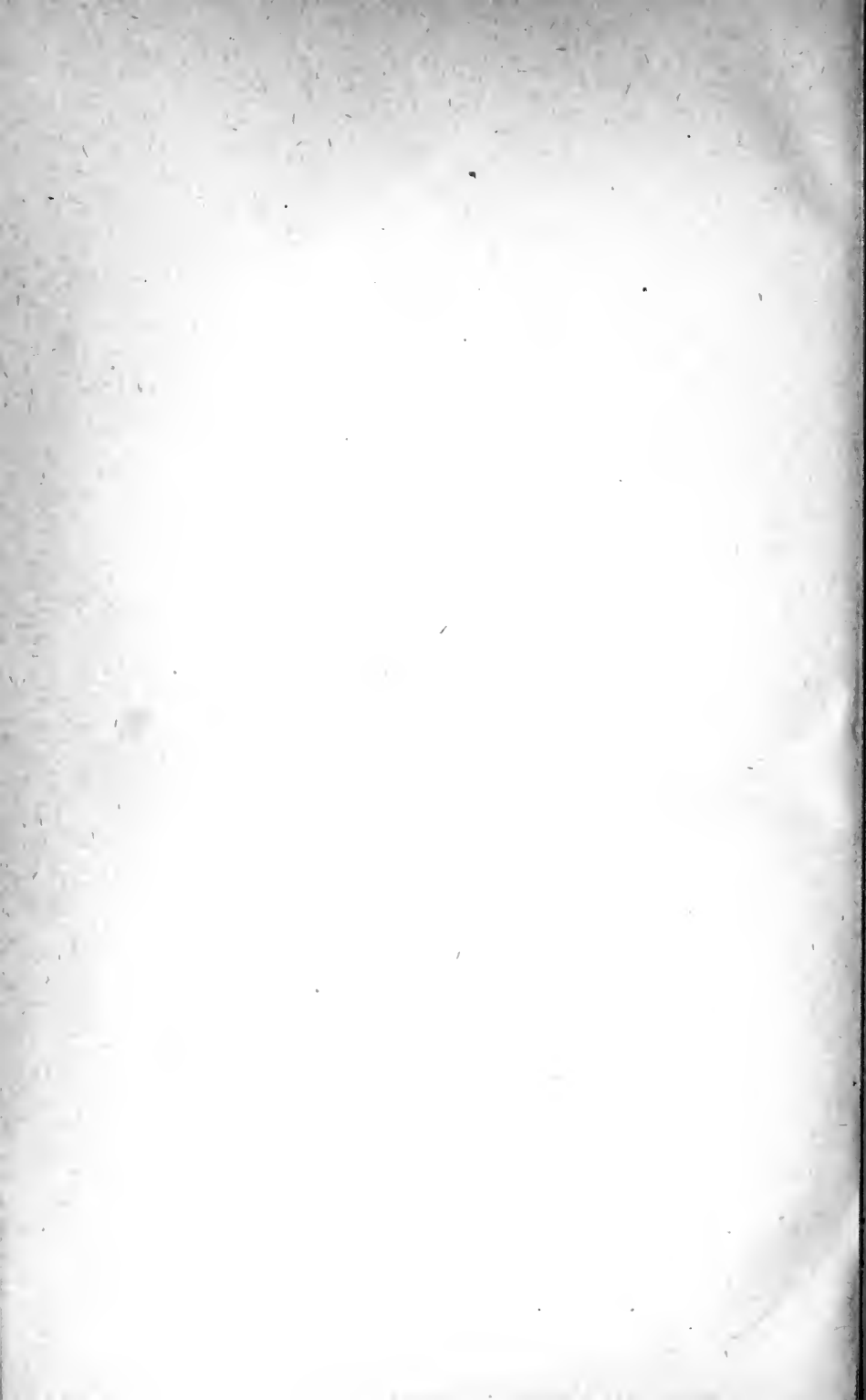
- Ashe, J., M.D., Physician Superintendent and Governor of the Central Criminal Lunatic Asylum, Dundrum, *vice* MacCabe.
- Bolton, W., M.D., Assistant Medical Officer to the Ipswich Lunatic Asylum.
- Bowes, J. I., M.R.C.S. Eng., L.S.A. Lond., Assistant Medical Officer to the Northamptonshire County Lunatic Asylum.
- Brown, J. J., M.B., F.R.C.P. Edin., Senior Assistant Medical Officer to the Royal Lunatic Asylum, Morningside, Edinburgh, *vice* Maclaren.
- Burtonshaw, T., M.R.C.S. Eng., Second Assistant Medical Officer, Essex Lunatic Asylum, Brentwood, *vice* Powell, appointed First Assistant Medical Officer of the Kent Lunatic Asylum, Barning Heath.
- Case, H., M.R.C.S., L.S.A.L. (on probation), Resident Medical Superintendent, Metropolitan Asylum District Asylum for Imbeciles, Haverstock Hill, *vice* Millson, appointed Medical Superintendent, Northamptonshire New Lunatic Asylum.
- Cassidy, D. M., M.D., C.M., Resident Medical Superintendent of the County Lunatic Asylum at Lancaster, *vice* Broadhurst, resigned.
- Dutt, B. L., M.B., C.M., Assistant Medical Officer to the Somerset County Lunatic Asylum, Wells, *vice* Dove, resigned.
- Eager, W., F.R.C.P. Lond., Medical Superintendent to the Suffolk County Asylum, *vice* Kirkman, resigned.
- Fraser, D., M.D., L.F.P.S.G., visiting Medical Officer to the New Parochial Lunatic Asylum, Paisley.
- Gill, S. A., L.R.C.P. Edin., L.F.P.S.G., M.R.C.S.E., Medical Superintendent of the Royal Lunatic Hospital, Liverpool, *vice* Wood, resigned.
- Hatchell, G. W., L.R.C.S.I., L.K.Q.C.P.I., Assistant to the Resident Medical Superintendent of the Downpatrick District Lunatic Asylum.
- Hetherington, C. E., M.B., T.C.D., Resident Medical Superintendent to the Londonderry District Lunatic Asylum, *vice* Ashe.
- Hood, F., L.R.C.P.L., M.R.C.S.E., Assistant Medical Officer to the Metropolitan Asylum District Asylum for Lunatics at Leavesden.
- Hutchings, R. L., M.R.C.S.E., Assistant Medical Officer to the Lancashire Lunatic Asylum, Prestwich.

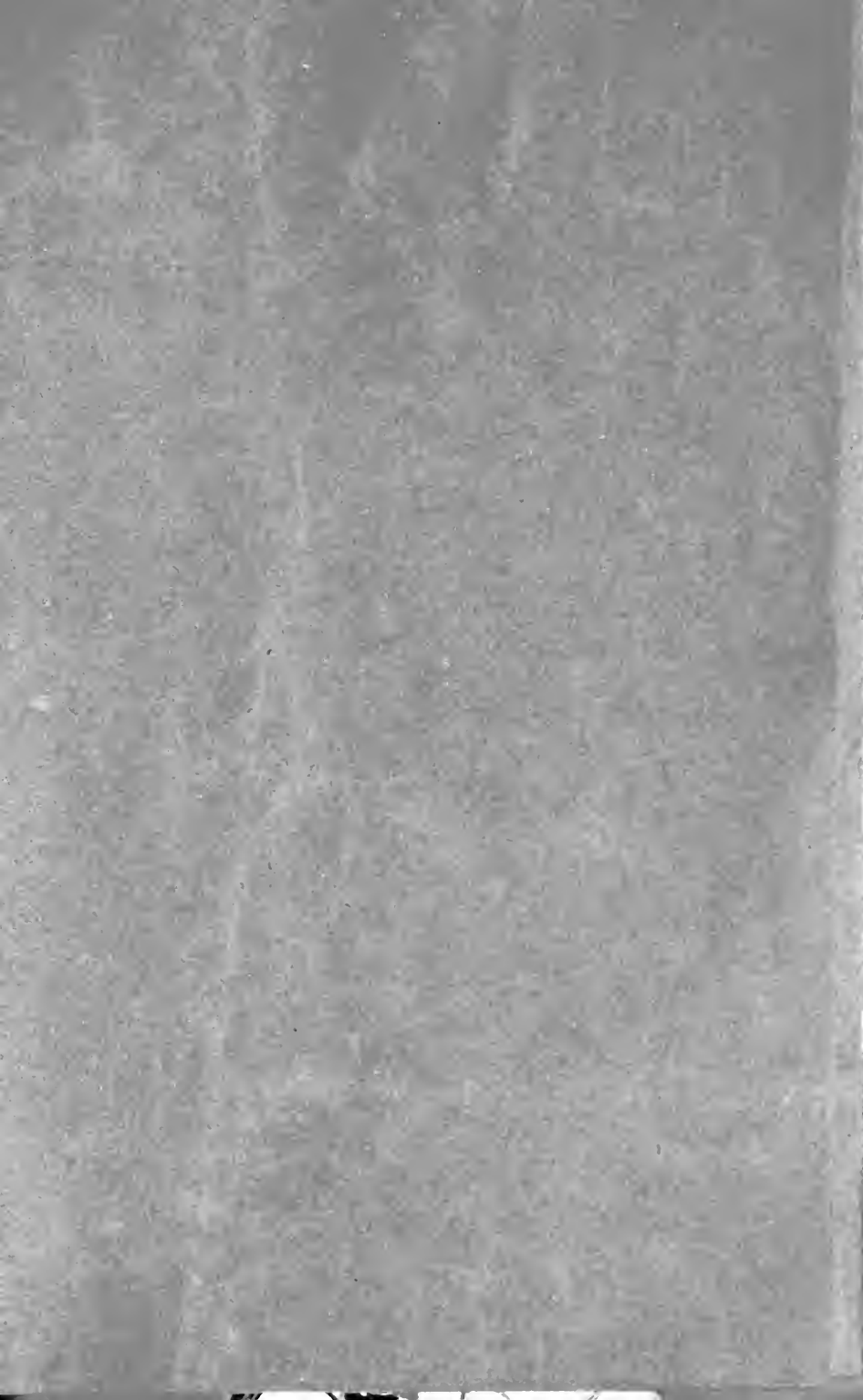
- Jones, P., L.R.C.P.E., L.F.P.S.G., L.S.A.L., Assistant Medical Officer to the Grove Hall Asylum, Bow.
- Jones, R., L.R.C.P. Edin., L.F.P.S.G., Junior Assistant Medical Officer to the Warwickshire Lunatic Asylum, Hatton, *vice* Seed, resigned.
- King, W. L., M.R.C.S.E., Assistant Medical Officer to the Suffolk County Asylum.
- Lyall, T., Superintendent of the New Parochial Lunatic Asylum at Paisley.
- Maclaren, J., L.R.C.S.E., Medical Superintendent of the Stirling District Asylum, *vice* F. W. A. Skae, M.D., resigned on his appointment to a Commissionership in Lunacy for New Zealand.
- McKenzie, G. H., M.B., C.M. Edin., Senior Medical Assistant at the Gloucestershire County Asylum, *vice* Dr. J. A. Philp, appointed Medical Superintendent of the Lincoln Lunatic Asylum.
- Major, H. C., M.D., Lecturer on Mental Diseases at the Leeds School of Medicine, *vice* Dr. J. Crichton Browne.
- Moody, J. M., M.R.C.S.E., Junior Assistant Medical Officer to the Brookwood Lunatic Asylum, *vice* Thomson, resigned.
- Nicolson, D., M.D., Deputy Medical Superintendent of the Criminal Lunatic Asylum, Broadmoor, *vice* Cassidy.
- Smith, J. H., M.D., Assistant Medical Officer to the Southamptonshire Lunatic Asylum, Knowle, *vice* Kitching, resigned.
- Thompson, J., M.B., C.M., Assistant Medical Officer to the Southamptonshire Lunatic Asylum, Knowle, *vice* Levinge, resigned.
- Townsend, C. P. G., L.R.C.S., Edin., L.S.A.L., Assistant Medical Officer to the Hospital for the Insane, Barnwood, near Gloucester, *vice* Watson.
- Turnbull, A.R., M.B., C.M., Junior Assistant Medical Officer to the Royal Lunatic Asylum, Morningside, Edinburgh.
- Wilson, J. H., M.B., C.M., Assistant Medical Officer to the Ipswich Lunatic Asylum.













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